

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Melanie Bagwell Examiner #: 77899 Date: 9/1/00
 Art Unit: 1711 Phone Number 303-6559 Serial Number: 09/14/96B
 Mail Box and Bldg/Room Location: CP3 4809 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Coating Composition Based on a Hydroxy-Group-Containing Film-Forming Polymer

Inventors (please provide full names): Paul Marie Vandeweyer, Antonius H. Van Engelen,
Ann Alfred J. LeMaire

Earliest Priority Filing Date: _____

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

(Closest art toward the beginning of printout)

| STAFF USE ONLY | Type of Search | Vendors and cost where applicable |
|--|--|-----------------------------------|
| Searcher: <u>ES</u> | NA Sequence (#) _____ STN <u>8 307, 92</u> | |
| Searcher Phone #: _____ | AA Sequence (#) _____ | Dialog _____ |
| Searcher Location: <u>STIC</u> | Structure (#) <u>(4) (abstracts)</u> | Questel/Orbit _____ |
| Date Searcher Picked Up: _____ | Bibliographic <u>(and)</u> | Dr.Link _____ |
| Date Completed: <u>9-6-00</u> | Litigation - _____ | Lexis/Nexis _____ |
| Searcher Prep & Review Time: <u>10</u> | Fulltext _____ | Sequence Systems _____ |
| Clerical Prep Time: _____ | Patent Family _____ | WWW/Internet _____ |
| Online Time: <u>65</u> | Other _____ | Other (specify) _____ |

SEARCH REQUEST FORM

SEP 0 1

Scientific and Technical Information Center

Pat. & T.M. Office

Requester's Full Name: Melanie Bagwell Examiner #: 77899 Date: 9/1/00
Art Unit: 1711 Phone Number 308-6539 Serial Number: 09/444968
Mail Box and Bldg/Room Location: CP3 4E09 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Coating Composition Based on a Hydroxy-Group-Containing-Film-Forming Polymer.

Inventors (please provide full names): Paul Marie Vandevorcle, Antonius H.G. Van Engelen,

Ann Alfred J. LeMoire

Earliest Pric 1/

*For Sequence
appropriate ser

A coating composition comprising a hydroxy group-containing film forming polymer with a hydroxy value between 75 and 300 mg KOH/g solid resin, a polyisocyanate compound, and a diol of the general formula $\text{HO-CH}_2\text{-CR}(\text{C}_2\text{H}_5)\text{-CH}_2\text{-OH}$, wherein R is an alkyl group having 3-6 carbon atoms.

with the

2. The coating composition according to claim 1, wherein R is n-butyl.
3. The coating composition according to claim 1, wherein the hydroxy group-containing film forming polymer is a hydroxy group-containing polyacrylate.
4. The coating composition according to claim 1, wherein the diol is present in the coating composition in an amount of 1 to 25% by weight, based on the weight of the hydroxy group-containing film forming polymer.
5. The coating composition according to claim 1, wherein the composition comprises less than 500 g/l of volatile organic solvent based on the total composition.
6. The coating composition according to claim 1, wherein the composition

STAFF I

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FILE 'REGISTRY' ENTERED AT 17:19:25 ON 06 SEP 2000
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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 11, 2000

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Structure search limits have been increased. See HELP SLIMIT
for details.

=> d his

(FILE 'HOME' ENTERED AT 15:02:03 ON 06 SEP 2000)

FILE 'LREGISTRY' ENTERED AT 15:02:19 ON 06 SEP 2000

FILE 'REGISTRY' ENTERED AT 15:03:36 ON 06 SEP 2000

| | | |
|-----|--------|------------------------|
| L1 | | STR |
| L2 | | STR |
| L3 | | SCR 1837 AND 1944 |
| L4 | 22 | S L1 AND L2 AND L3 |
| L5 | 913 | S L1 AND L2 AND L3 FUL |
| | | SAV L5 BAG968/A |
| L6 | 12 | S L5 AND 1/NC |
| L7 | 892 | S L5 AND PMS/CI |
| | | E POLYISOCYANATE/PCT |
| | | E POLYESTER/CN |
| | | E POLYESTER/PCT |
| L8 | 146515 | S E3 |
| | | E POLYURETHANE/PCT |
| L9 | 55012 | S E3 |
| L10 | 734 | S L7 AND L8 |
| L11 | 411 | S L7 AND L9 |
| L12 | 289 | S L7 AND L8 AND L9 |
| | | E POLYACRYLIC/PCT |
| L13 | 236480 | S E3 |
| L14 | 114 | S L13 AND L5 |

FILE 'HCA' ENTERED AT 15:50:25 ON 06 SEP 2000

| | | |
|-----|--------|------------------------|
| | | E COATINGS/CV |
| L15 | 14242 | S E3 |
| | | E COATING MATERIALS/CV |
| L16 | 175851 | S E3 |

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      E COATING PROCESS/CV
L17      80469 S E3
L18      3428 S CLEARCOAT? OR CLEAR?(2A) COAT?
L19      96538 S ?ISOCYANAT? OR NCO OR OCN OR N(W)C(W)O OR O(W)C(W)N
L20      217 S L6
L21      331 S L10
L22      205 S L11
L23      138 S L12
L24      50 S L14
L25      22 S (L20 OR L21 OR L22 OR L23 OR L24) AND L18
L26      4 S L20 AND L18
L27      43 S L20 AND (L15 OR L16 OR L17)
L28      21 S L27 AND L19
L29      9 S L28 AND (?ACRYLIC? OR ?ACRYLAT?)
L30      10 S L28 AND (POLYESTER# OR POLY(2A)ESTER#)
L31      19 S L28 AND ?URETHAN?
L32      7315 S KOH(2W) (G OR GR OR GM# OR GRAM#)
L33      0 S L28 AND L32
L34      37477 S (HYDROXY### OR DIHYDROXY### OR TRIHYDROXY### OR TETRAHY
L35      1 S L28 AND L34
L36      200 S (L20-L24) AND (L15 OR L16 OR L17 OR L18)
L37      20 S L36 AND L34
L38      15 S L37 AND L19
L39      12 S L37 AND (?ACRYLIC? OR ?ACRYLAT?)
L40      17 S L37 AND (POLYESTER# OR POLY(2A)ESTER#)
L41      13 S L37 AND ?URETHAN?
L42      13 S L20 AND L32
L43      1 S L42 AND (L15-L18)
L44      0 S L42 AND L19
L45      0 S L42 AND (?ACRYLIC? OR ?ACRYLAT?)
L46      11 S L42 AND (POLYESTER# OR POLY(2A)ESTER#)
L47      3 S L42 AND ?URETHAN?

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FILE 'HCAPLUS' ENTERED AT 16:18:52 ON 06 SEP 2000
L48      46 S VANDEVOORDE ?/AU
L49      283 S ENGELN ?/AU OR VAN ENGELN ?/AU
L50      2176 S LEMAIRE ?/AU OR LE MAIRE ?/AU
L51      1 S L48 AND L49 AND L50
      SEL

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L51 1 RN

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FILE 'REGISTRY' ENTERED AT 16:20:18 ON 06 SEP 2000
L52      2 S E1-E2

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FILE 'HCA' ENTERED AT 16:22:11 ON 06 SEP 2000
L53      1 S L52

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FILE 'REGISTRY' ENTERED AT 16:23:21 ON 06 SEP 2000
L54      21560 S 868-77-9/CRN
L55      2261 S 923-26-2/CRN
      SEL L6 1-12 RN
      EDIT E3-E14 /BI /CRN

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L56 723 S E3-E14
L57 30 S L56 AND (L54 OR L55)
L58 30 S L57 AND L7

FILE 'HCA' ENTERED AT 16:28:45 ON 06 SEP 2000

L59 13 S L58
L60 9 S L59 AND (L15 OR L16 OR L17 OR L18)
L61 2 S L35 OR L43
L62 9 S L60 NOT L61
L63 6 S (L26 OR L47) NOT (L61 OR L62)
L64 24 S (L38 OR L39 OR L40 OR L41 OR L46) NOT (L61 OR L62 OR L6
L65 34 S (L25 OR L28 OR L31) NOT (L61 OR L62 OR L63 OR L64)
L66 15 S L65 AND L18
L67 19 S L65 NOT L66

FILE 'REGISTRY' ENTERED AT 17:19:25 ON 06 SEP 2000

=> file hca

FILE 'HCA' ENTERED AT 17:19:43 ON 06 SEP 2000
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FILE COVERS 1967 - 1 Sep 2000 VOL 133 ISS 11
FILE LAST UPDATED: 1 Sep 2000 (20000901/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

This file supports REGISTRY for direct browsing and searching of all substance data from the REGISTRY file. Enter HELP FIRST for more information.

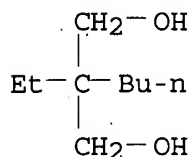
Now you can extend your author, patent assignee, patent information, and title searches back to 1907. The records from 1907-1966 now have this searchable data in CAOLD. You now have electronic access to all of CA: 1907 to 1966 in CAOLD and 1967 to the present in HCA on STN.

=> d l61 1-2 ibib abs hitstr hitind

L61 ANSWER 1 OF 2 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 132:195564 HCA
TITLE: Polyamide-ester modifiers, compositions
containing them, and their molded products with

INVENTOR(S): excellent adhesion to coatings and adhesives
 Kitahara, Shizuo; Ikeda, Shinya
 PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| | JP 2000072872 | A2 | 20000307 | JP 1998-256029 | 19980826 |
| AB | The compns., useful for elec., electronic, and automotive parts, etc., contain the modifiers obtained from polybasic carboxylic acids, polyhydric alcs., and polyamines, where the mol ratio of amide/ester is 99/1-10/90, OH value is 30-200 mg-KOH/g, and Mw is 3000-500,000. Thus, a compn. contg. 100 parts EPDM 3070 (rubber) and 10 parts a reaction product of Versadyme 288 (dimer acid) 1034, 1,6-hexamethylenediamine 201.9, and pentaerythritol 59.2 g was molded into a sheet and coated with a polyurethane adhesive to give a test piece showing good peeling strength. | | | | |
| IT | 115-84-4DP, 2-Butyl-2-ethyl-1,3-propanediol, polymers with dimer acids and polyamines (polyamide-polyester modifiers for molded products with good adhesion to coatings and adhesives) | | | | |
| RN | 115-84-4 HCA | | | | |
| CN | 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) | | | | |



IC ICM C08G069-44
 ICS C08L023-16; C08L101-00
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37, 39
 IT Adhesives
Coating materials
 (thermosetting; polyamide-polyester modifiers for molded products with good adhesion to coatings and adhesives)
 IT 107-15-3DP, 1,2-Ethylenediamine, polymers with dimer acids and polyols 115-77-5DP, Pentaerythritol, polymers with dimer acids and diamines 115-84-4DP, 2-Butyl-2-ethyl-1,3-propanediol, polymers with dimer acids and polyamines 124-09-4DP, 1,6-Hexanediamine, polymers with dimer acids and polyols

4457-71-0DP, 3-Methyl-1,5-pentanediol, polymers with dimer acids and polyamines

(polyamide-polyester modifiers for molded products with good adhesion to coatings and adhesives)

L61 ANSWER (2) OF 2 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 118:126606 HCA
 TITLE: Transparent protective polyurethane coating materials
 INVENTOR(S): Okamoto, Kohei; Shiraki, Yoshiro; Tanaka, Toshihiro
 PATENT ASSIGNEE(S): Idemitsu Petrochemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

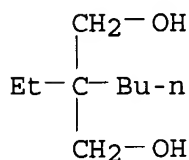
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 04225083 | A2 | 19920814 | JP 1990-415317 | 19901227 |
| JP 3024801 | B2 | 20000327 | | |

AB Coating materials contain polyols contg. >50% hydrogenated liq. isoprene polymers having >2 OH groups/mol., .gtoreq.1 polyisocyanate, and 40-200 parts (per 100 parts polyols) viscosity-lowering agents selected from aliph. and alicyclic hydrocarbons having flash point >40.degree.. Thus, a coating material **contained** hydrogenated OH group-terminated liq. polyisoprene 100, IPDI 9.4, IP-2028 (isobutylene oligomer) 100, an accelerator 0.05, and a defoamer 0.01 part.

IT **115-84-4D**, 2-Butyl-2-ethyl-1,3-propanediol, polymers with hydrogenated hydroxy-terminated polyisoprene and **polyisocyanates** (coatings, protective, transparent)

RN 115-84-4 HCA

CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C09D175-04
 ICS C09D175-04
 CC 42-10 (Coatings, Inks, and Related Products)
 IT Castor oil

(esters, polymers, with hydrogenated hydroxy-terminated polyisoprene and **polyisocyanates**, for coatings transparent, protective)

IT **Coating materials**
(transparent, protective, hydrogenated hydroxy-terminated polyisoprene and **polyisocyanates** for)

IT 94-96-2D, 2-Ethyl-1,3-hexanediol, polymers with hydrogenated hydroxy-terminated polyisoprene and **polyisocyanates**
115-84-4D, 2-Butyl-2-ethyl-1,3-propanediol, polymers with hydrogenated hydroxy-terminated polyisoprene and **polyisocyanates** 4098-71-9D, IPDI, polymers with hydrogenated hydroxy-terminated polyisoprene 5124-30-1D, polymers with ethylhexanediol and hydrogenated hydroxy-terminated polyisoprene 9003-31-0D, Polyisoprene, hydroxy-terminated, hydrogenated, polymers with **polyisocyanates** 42170-25-2D, polymers with hydrogenated hydroxy-terminated polyisoprene 75138-76-0D, Takenate 600, polymers with hydrogenated hydroxy-terminated polyisoprene 79103-62-1D, Desmodur W, polymers with ethylhexanediol and hydrogenated hydroxy-terminated polyisoprene 136960-44-6D, Uric Y403, polymers with hydrogenated hydroxy-terminated polyisoprene and **polyisocyanates** (coatings, protective, transparent)

=> d his 168-

(FILE 'HCA' ENTERED AT 16:28:45 ON 06 SEP 2000)

FILE 'REGISTRY' ENTERED AT 17:19:25 ON 06 SEP 2000

FILE 'HCA' ENTERED AT 17:19:43 ON 06 SEP 2000

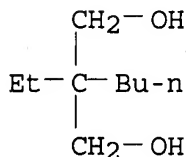
L68 9121 S (HYDROXY### OR OH OR HO) (2A) (VALUE# OR CONTENT?)
L69 22 S L20 AND L68
L70 4 S L69 AND (L15 OR L16 OR L17 OR L18)
L71 3 S L70 NOT L61

=> d l71 1-3 ibib abs hitstr hitind

L71 ANSWER (1) OF 3 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 130:82885 HCA
TITLE: Use of 2-butyl-2-ethyl-1,3-propanediol in polyester resins for coil coatings
AUTHOR(S): Vaahtio, Marja
CORPORATE SOURCE: Neste, Finland
SOURCE: Eur. Coat. J. (1998), (12), 948,951-952
CODEN: ECJOEF; ISSN: 0930-3847
PUBLISHER: Vincentz Verlag
DOCUMENT TYPE: Journal
LANGUAGE: English
AB A report on the phys. properties of polyester resins and coatings

contg. different amts. of 2-butyl-2-ethyl-1,3-propanediol and 1,6-hexanediol is given. Topics include the synthesis of the resins, phys. properties of the resins (e.g. glass transition temp., **hydroxyl values**) and the coatings (e.g. viscosity, flexibility vs. hardness, weathering, stain and MEK-rub resistance), and a brief discussion of the exptl. obtained results. Moreover, the effect of addnl. adipic acid, for enhanced flexibility, on the coating properties was detd.

IT 115-84-4D, 2-Butyl-2-ethyl-1,3-propanediol, polymers
(properties of butylethylpropanediol or hexanediol-contg.
polyester resins used for coil coatings)
RN 115-84-4 HCA
CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX
NAME)



CC 42-8 (Coatings, Inks, and Related Products)
IT **Coatings**
(coil; properties of butylethylpropanediol or hexanediol-contg.
polyester resins used for coil coatings)
IT 115-84-4D, 2-Butyl-2-ethyl-1,3-propanediol, polymers
629-11-8, 1,6-Hexanediol
(properties of butylethylpropanediol or hexanediol-contg.
polyester resins used for coil coatings)

L71 ANSWER 2 OF 3 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 122:268290 HCA
TITLE: Urethanated oil compositions for water-based
coating materials
INVENTOR(S): Amemoto, Masahide
PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 06279562 | A2 | 19941004 | JP 1993-69947 | 19930329 |

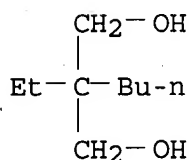
AB Storage-stable title compns. mainly comprise aq. urethanated oils obtained by reacting (A) resins (OH value 30-250) prepd. by reaction of drying oils and/or their fatty acids, (B) oxycarboxylic acids, (C) other hydroxy compds., (D) org.

isocyanates, and (E) chain extenders. Thus, linseed oil 500, soybean oil 500, and pentaerythritol 66 parts were heated in the presence of LiOH at 250.degree. to give a resin soln., 730 parts of which was stirred with polypropylene glycol (mol. wt. 400) 30, dimethylolpropionic acid 48, and TDI 192 parts in 700 parts MEK to NCO content 1.5% (solid content), cooled, then mixed with 37 parts Et3N, then stirred in 2000 parts water contg. 15 parts piperazine, then distd. under reduced pressure to give a translucent resin soln. contg. 35% nonvolatiles, which was mixed with Dicnate 3111 and water to give a coating material, which showed viscosity 1650, 1550 cP and pH 9.2, 9.0, after 1 wk and 3 mo, resp.

IT 115-84-4DP, reaction products with drying oils and oxycarboxylic acids and chain extenders
(urethanated oil compns. with good storage stability for aq. coatings)

RN 115-84-4 HCA

CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C08G018-32
ICS C08G018-42

ICA C08L075-04; C09D175-04

CC 42-10 (Coatings, Inks, and Related Products)

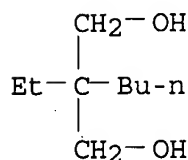
IT **Coating materials**
(urethanated oil compns. with good storage stability for aq. coatings)

IT 106-14-9DP, 12-Hydroxystearic acid, reaction products with drying oils and hydroxy compds. and org. isocyanates and chain extenders 110-85-ODP, Piperazine, reaction products with drying oils and oxycarboxylic acids and hydroxy compds. 115-77-5DP, Pentaerythritol, reaction products with drying oils and oxycarboxylic acids and org. isocyanates and chain extenders 115-84-4DP, reaction products with drying oils and oxycarboxylic acids and chain extenders 302-01-2DP, Hydrazine, reaction products with drying oils and oxycarboxylic acids and hydroxy compds. 822-06-ODP, Hexamethylene diisocyanate, reaction products with drying oils and hydroxy compds. and org. isocyanates and chain extenders 4767-03-7DP, Dimethylolpropionic acid, reaction products with drying oils and hydroxy compds. and org. isocyanates and chain extenders 25068-38-6DP, Epikote 1001, reaction products with drying oils and oxycarboxylic acids and hydroxy compds. and chain extenders 25322-69-4DP, Polypropylene glycol, reaction products with drying oils and oxycarboxylic acids and org. isocyanates and chain extenders 26471-62-5DP, TDI,

reaction products with drying oils and hydroxy compds. and org.
isocyanates and chain extenders
(urethanated oil compns. with good storage stability for aq.
coatings)

L71 ANSWER (3) OF 3 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 122:242428 HCA
TITLE: Thermosetting water-based alkyd resin
compositions
INVENTOR(S): Amemoto, Masahide
PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| | JP 06329892 | A2 | 19941129 | JP 1993-124043 | 19930526 |
| AB | The compns., with stable resistance to hydrolysis, comprise curing agents and resins obtained by reaction of (A) alkyd resins with OH value 30-250, (B) hydroxy carboxylic acids, (C) org. isocyanates, and (D) other hydroxy compds. Thus, 1000 parts safflower oil was treated with 150 parts pentaerythritol in the presence of LiOH to give a resin soln. with OH value 200, 690 parts of which was treated with M 4000 (polyethylene glycol mono-Me ether) 55, dimethylolpropionic acid 60, and TDI 195 parts in MEK, emulsified in water in the presence of Et3N, then MEK was removed by distn. to give a translucent soln. with solids content 35%, which was mixed with Watersol S 695, water, and R 820 (TiO2) to give a coating compn. with good hydrolysis resistance, which was sprayed on a bonderized steel sheet to give a coating with hardness H and gloss 89. | | | | |
| IT | 115-84-4DP, 2-Ethyl-2-butyl-1,3-propanediol, polymers (thermosetting aq. alkyd resin-urethane coatings with good hydrolysis resistance) | | | | |
| RN | 115-84-4 HCA | | | | |
| CN | 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) | | | | |



IC ICM C08L067-08
ICS C08L075-04; C09D167-08; C09D175-04

ICA C08G018-42
 CC 42-8 (Coatings, Inks, and Related Products)
 IT **Coating materials**
 (thermosetting, water-thinned, hydrolysis-resistant;
 thermosetting aq. alkyd resin-urethane coatings with good
 hydrolysis resistance)
 IT 115-77-5DP, Pentaerythritol, polymers **115-84-4DP**,
 2-Ethyl-2-butyl-1,3-propanediol, polymers 121-91-5DP, Isophthalic
 acid, polymers 126-30-7DP, Neopentyl glycol, polymers
 629-11-8DP, 1,6-Hexanediol, polymers 4767-03-7DP,
 Dimethylolpropionic acid, polymers 9004-74-4DP, Polyethylene
 glycol monomethyl ether, polymers 25068-38-6DP, Epikote 1001,
 reaction products with alkyd resins, dimethylolpropionic acid, TDI,
 and neopentyl glycol 25322-69-4DP, Polypropylene glycol, polymers
 26471-62-5DP, TDI, polymers 27193-25-5DP, Cyclohexanedimethanol,
 polymers 138988-50-8DP, Elastron BN 69, polymers
 (thermosetting aq. alkyd resin-urethane coatings with good
 hydrolysis resistance)

=> d 162 1-9 ibib abs hitstr hitind

L62 ANSWER 1 OF 9 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 133:18835 HCA
 TITLE: Water-thinned, 3-component coating compositions
 containing polyisocyanates and
 isocyanate-reactive components and their use
 INVENTOR(S): Meisenburg, Uwe; Rink, Heinz-Peter
 PATENT ASSIGNEE(S): Basf Coatings A.-G., Germany
 SOURCE: Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| DE 19855146 | A1 | 20000531 | DE 1998-19855146 | 19981130 |
| WO 2000032666 | A1 | 20000608 | WO 1999-EP8061 | 19991025 |
| W: BR, JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |

PRIORITY APPLN. INFO.: DE 1998-19855146 19981130

AB Three-component coating systems have .gtoreq.1 polymer with
 NCO-reactive groups in 1 nonaq. component, .gtoreq.1 polyisocyanate
 crosslinker in another nonaq. component, and a 3rd component contg.
 water, with .gtoreq.1 portion of .gtoreq.1 of the components being
 crosslinkable by light and(or) electron radiation. A typical
 coating compn. was manufd. by mixing a compn. contg.
 1.36:7.13:9.56:3.16:5.72:5.96 acrylic acid (I)-Bu methacrylate

(II)-hydroxyethyl acrylate (III)-lauryl methacrylate-Me methacrylate (IV)-styrene copolymer 70.44, Laromer R8987 (polyurethane acrylate) 40, dibasic ester mixt. 4.24, ethylene glycol Bu ether acetate (V) 12.76, wetting agent 4.24, flow-control agent 0.88, silicone additive 0.88, F-contg. flow-control agent 2.52, light stabilizer 3.04, and photoinitiator 1.4 parts with a compn. contg. 44.5 parts Desmodur 2025/1 (HDI-based polyisocyanate) and 6.44 parts V and a compn. contg. water 72.48, dimethylethanolamine 1.76, 39% solids 58:255:215:113:113:197:181 I-II-III-hydroxyethyl methacrylate-Methacrylester C13-IV-styrene copolymer dimethylethanolamine salt dispersion 44.8, and 36.1% polyester-polyurethane dispersion (prepd. by reaction of 2-butyl-2-ethyl-1,3-propanediol (VI) 6.6, dimethylolpropionic acid 69, m-tetramethylxylylene diisocyanate 318, and trimethylolpropane 101 g with 749 g polyester prepd by polymn. of neopentyl glycol bis(hydroxypivalate) 1088, phthalic anhydride 120, isophthalic acid 1268, VI 21, and neopentyl glycol 489 g and neutralization with dimethylethanolamine) 89.52 parts.

IT 272126-99-5P

(cured coating; water-thinned, 3-component coating compns. contg. polyisocyanates and isocyanate-reactive components for radiation-thermal-curable films)

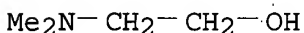
RN 272126-99-5 HCA

CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-bis(1-isocyanato-1-methylethyl)benzene; 2-butyl-2-ethyl-1,3-propanediol, butyl 2-methyl-2-propenoate, Desmodur 2025/1, 2,2-dimethyl-1,3-propanediol, dodecyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 3-hydroxy-2,2-dimethylpropyl 3-hydroxy-2,2-dimethylpropanoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 1,3-isobenzofurandione, Methacrylester C 13, methyl 2-methyl-2-propenoate and 2-propenoic acid, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0

CMF C4 H11 N O



CM 2

CRN 272126-98-4

CMF (C16 H30 O2 . C14 H16 N2 O2 . C10 H20 O4 . C9 H20 O2 . C8 H14 O2 . C8 H8 . C8 H6 O4 . C8 H4 O3 . C6 H14 O3 . C6 H10 O3 . C5 H12 O2 . C5 H10 O4 . C5 H8 O3 . C5 H8 O2 . C3 H4 O2 . Unspecified . Unspecified)x

CCI PMS

CM 3

CRN 213388-17-1

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 128282-21-3

CMF Unspecified

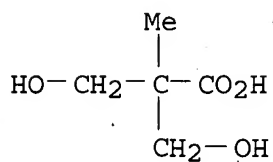
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 4767-03-7

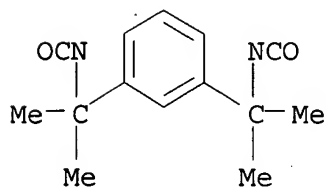
CMF C5 H10 O4



CM 6

CRN 2778-42-9

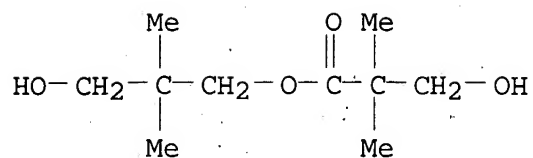
CMF C14 H16 N2 O2



CM 7

CRN 1115-20-4

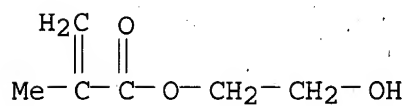
CMF C10 H20 O4



CM 8

CRN 868-77-9

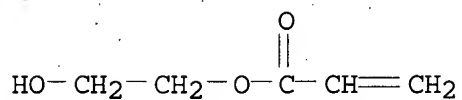
CMF C6 H10 O3



CM 9

CRN 818-61-1

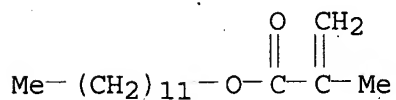
CMF C5 H8 O3



CM 10

CRN 142-90-5

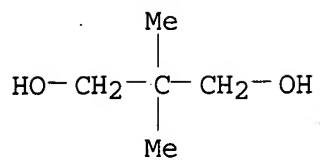
CMF C16 H30 O2



CM 11

CRN 126-30-7

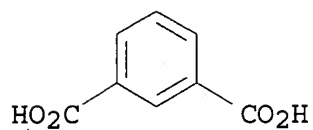
CMF C5 H12 O2



CM 12

CRN 121-91-5

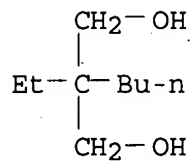
CMF C8 H6 O4



CM 13

CRN 115-84-4

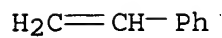
CMF C9 H20 O2



CM 14

CRN 100-42-5

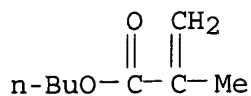
CMF C8 H8



CM 15

CRN 97-88-1

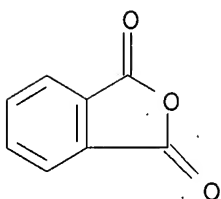
CMF C8 H14 O2



CM 16

CRN 85-44-9

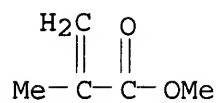
CMF C8 H4 O3



CM 17

CRN 80-62-6

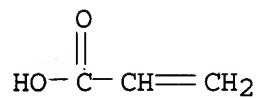
CMF C5 H8 O2



CM 18

CRN 79-10-7

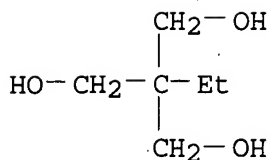
CMF C3 H4 O2



CM 19

CRN 77-99-6

CMF C6 H14 O3



IC ICM C09D175-04

ICS C09D133-04; C09D167-06; C09D163-10; C09D171-00; C09D161-28;
C09D183-07

CC 42-7 (Coatings, Inks, and Related Products)

IT Coating materials

(photocurable, water-thinned; water-thinned, 3-component coating
comps. contg. polyisocyanates and isocyanate-reactive components
for radiation-thermal-curable films)

IT 272126-99-5P

(cured coating; water-thinned, 3-component coating comps. contg.
polyisocyanates and isocyanate-reactive components for
radiation-thermal-curable films)

REFERENCE COUNT: 1

REFERENCE(S): (1) Anon; US 4425472 HCA

L62 ANSWER 2 OF 9 HCA COPYRIGHT 2000 ACS

ACCESSION NUMBER: 133:18824 HCA

TITLE: coating systems containing a nonaqueous
polyisocyanate-based crosslinking component, a
nonaqueous isocyanate-reactive polymer or
oligomer component, and a water component

INVENTOR(S): Loecken, Wilma; Rink, Heinz-Peter

PATENT ASSIGNEE(S): Basf Coatings A.-G., Germany

SOURCE: Ger. Offen., 20 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| DE 19855167 | A1 | 20000531 | DE 1998-19855167 | 19981130 |
| WO 2000032667 | A1 | 20000608 | WO 1999-EP8855 | 19991118 |
| W: BR, JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |

PRIORITY APPLN. INFO.: DE 1998-19855167 19981130

AB The transparency and gasoline resistance are improved by addn. of
.gtoreq.1 (a)cyclic C9-16 alkanepolyol to the NCO-reactive polymer
or oligomer component or water component of title systems.

IT 272126-99-5P

(crosslinked coating; water-thinned polyisocyanate-crosslinked
coatings contg. alkanepolyols for improved transparency and

gasoline resistance)
 RN 272126-99-5 HCA
 CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-bis(1-isocyanato-1-methylethyl)benzene, 2-butyl-2-ethyl-1,3-propanediol, butyl 2-methyl-2-propenoate, Desmodur 2025/1, 2,2-dimethyl-1,3-propanediol, dodecyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 3-hydroxy-2,2-dimethylpropyl 3-hydroxy-2,2-dimethylpropanoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 1,3-isobenzofurandione, Methacrylester C 13, methyl 2-methyl-2-propenoate and 2-propenoic acid, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0
 CMF C4 H11 N O

Me₂N-CH₂-CH₂-OH

CM 2

CRN 272126-98-4
 CMF (C16 H30 O2 . C14 H16 N2 O2 . C10 H20 O4 . C9 H20 O2 . C8 H14 O2 . C8 H8 . C8 H6 O4 . C8 H4 O3 . C6 H14 O3 . C6 H10 O3 . C5 H12 O2 . C5 H10 O4 . C5 H8 O3 . C5 H8 O2 . C3 H4 O2 . Unspecified . Unspecified)x
 CCI PMS

CM 3

CRN 213388-17-1
 CMF Unspecified
 CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

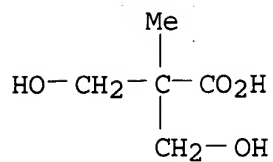
CRN 128282-21-3
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 4767-03-7

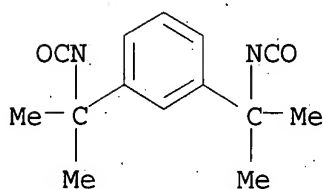
CMF C5 H10 O4



CM 6

CRN 2778-42-9

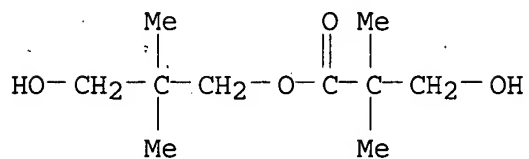
CMF C14 H16 N2 O2



CM 7

CRN 1115-20-4

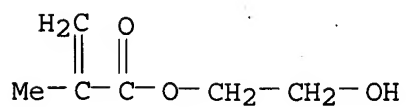
CMF C10 H20 O4



CM 8

CRN 868-77-9

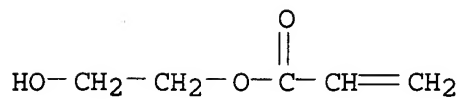
CMF C6 H10 O3



CM 9

CRN 818-61-1

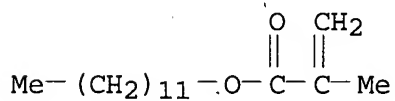
CMF C5 H8 O3



CM 10

CRN 142-90-5

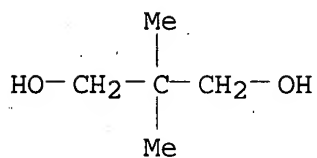
CMF C16 H30 O2



CM 11

CRN 126-30-7

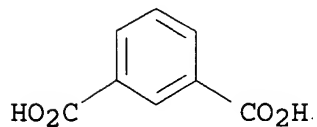
CMF C5 H12 O2



CM 12

CRN 121-91-5

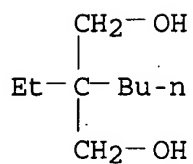
CMF C8 H6 O4



CM 13

CRN 115-84-4

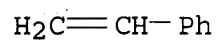
CMF C9 H20 O2



CM 14

CRN 100-42-5

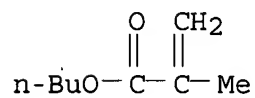
CMF C8 H8



CM 15

CRN 97-88-1

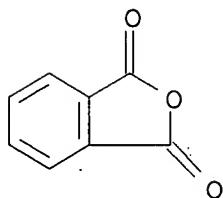
CMF C8 H14 O2



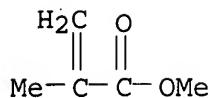
CM 16

CRN 85-44-9

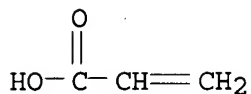
CMF C8 H4 O3



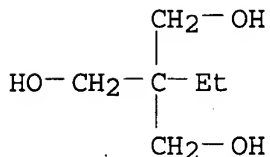
CM 17

CRN 80-62-6
CMF C5 H8 O2

CM 18

CRN 79-10-7
CMF C3 H4 O2

CM 19

CRN 77-99-6
CMF C6 H14 O3

IC ICM C09D175-04

ICS C09D133-14; C09D167-00

CC 42-5 (Coatings, Inks, and Related Products)

IT **Coating materials**

(solvent-resistant; water-thinned polyisocyanate-crosslinked coatings contg. alkanepolyols for improved transparency and gasoline resistance)

IT **Coating materials**

(transparent; water-thinned polyisocyanate-crosslinked coatings contg. alkanepolyols for improved transparency and gasoline resistance)

IT **Coating materials**

(water-thinned; water-thinned polyisocyanate-crosslinked coatings contg. alkanepolyols for improved transparency and gasoline resistance)

IT 272126-99-5P

(crosslinked coating; water-thinned polyisocyanate-crosslinked coatings contg. alkanepolyols for improved transparency and gasoline resistance)

REFERENCE COUNT: 1
REFERENCE(S): (1) Anon; DE 4410609 A1 HCA

L62 ANSWER (3) OF 9 HCA COPYRIGHT 2000 ACS

ACCESSION NUMBER: 130:26291 HCA

TITLE: Coating composition based on a hydroxy group-containing film forming polymer, a polyisocyanate compound, and a diol

INVENTOR(S): Vandevoorde, Paul Marie; Van Engelen, Antonius Hendrikus Gerardus; Lemaire, Ann Alfred Johanna

PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.

SOURCE: PCT Int. Appl., 28 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 9853013 | A1 | 19981126 | WO 1998-EP3024 | 19980519 |
| W: JP, US | | | | |
| RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| EP 983323 | A1 | 20000308 | EP 1998-932070 | 19980519 |
| R: DE, FR, GB, IT, NL | | | | |
| PRIORITY APPLN. INFO.: | | | EP 1997-201511 | 19970521 |
| | | | WO 1998-EP3024 | 19980519 |

AB The invention relates to a coating compn. comprising a hydroxy group-contg. film-forming polymer with a hydroxy value between 75 and 300 mg KOH/g solid resin, a polyisocyanate compd., and a diol HO-CH₂-CR(C₂H₅)-CH₂-OH, wherein R is an alkyl group having 3-6 carbon atoms. The invention further relates to a method of coating which comprises the coating compn. being applied to a substrate, and to a coated substrate, in particular cars and large transport vehicles.

IT 216514-44-2P 216514-46-4P

(coating compn. based on a hydroxy group-contg. film forming polymer, a polyisocyanate compd., and a diol)

RN 216514-44-2 HCA

CN 2-Propenoic acid, 2-methyl-, polymer with 2-butyl-2-ethyl-1,3-propanediol, butyl 2-methyl-2-propenoate, butyl 2-propenoate, Desmodur LS 2025, ethenylbenzene, 2-hydroxypropyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

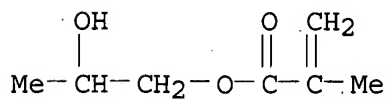
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CRN 195215-43-1
 CMF Unspecified
 CCI PMS, MAN

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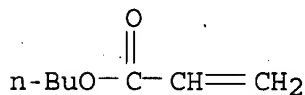
CM 2

CRN 923-26-2
 CMF C7 H12 O3



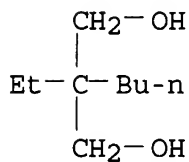
CM 3

CRN 141-32-2
 CMF C7 H12 O2



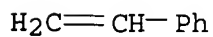
CM 4

CRN 115-84-4
 CMF C9 H20 O2

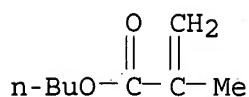


CM 5

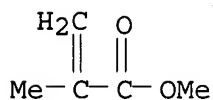
CRN 100-42-5
 CMF C8 H8



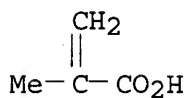
CM 6

CRN 97-88-1
CMF C8 H14 O2

CM 7

CRN 80-62-6
CMF C5 H8 O2

CM 8

CRN 79-41-4
CMF C4 H6 O2

RN 216514-46-4 HCA
 CN 2-Propenoic acid, 2-methyl-, polymer with 2-butyl-2-ethyl-1,3-propanediol, butyl 2-methyl-2-propenoate, butyl 2-propenoate, Desmodur LS 2025, ethenylbenzene, hexahydro-1,3-isobenzofurandione, 2-hydroxyethyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

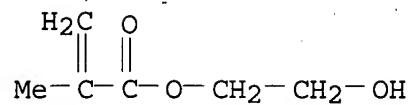
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CRN 195215-43-1
CMF Unspecified
CCI PMS, MAN

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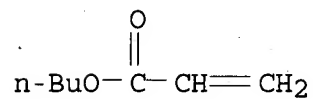
CM 2

CRN 868-77-9
CMF C6 H10 O3



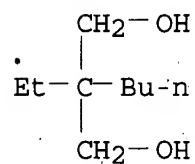
CM 3

CRN 141-32-2
CMF C7 H12 O2



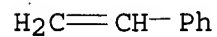
CM 4

CRN 115-84-4
CMF C9 H20 O2



CM 5

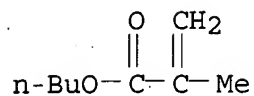
CRN 100-42-5
CMF C8 H8



CM 6

CRN 97-88-1

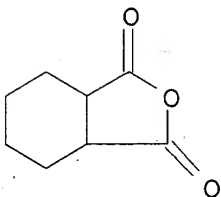
CMF C8 H14 O2



CM 7

CRN 85-42-7

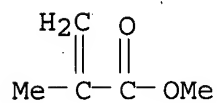
CMF C8 H10 O3



CM 8

CRN 80-62-6

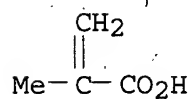
CMF C5 H8 O2



CM 9

CRN 79-41-4

CMF C4 H6 O2



IC ICM C09D005-00

ICS C09D175-04; C08G018-65

CC 42-10 (Coatings, Inks, and Related Products)

ST polyisocyanate hydroxy polymer diol **clear coating**

compn; butylethylpropanediol **clear coating**
 compn; polyester polyurethane **clear coating**
 IT **Coatings**
 Transparent coatings
 (coating compn. based on a hydroxy group-contg. film forming
 polymer, a polyisocyanate compd., and a diol)
 IT **216514-44-2P 216514-46-4P**
 (coating compn. based on a hydroxy group-contg. film forming
 polymer, a polyisocyanate compd., and a diol)
 REFERENCE COUNT: 5
 REFERENCE(S): (1) Chisso Corp; JP 04050221 A 1992
 (2) Chisso Corp; JP 04309569 A 1992
 (3) Nippon Polyurethane Kogyo KK; EP 0645411 A
 1995
 (4) Nippon Shokubai Co Ltd; JP 08059784 A
 (5) Union Carbide Chem Plastic; WO 9716466 A
 1997

L62 ANSWER (4) OF 9 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 127:6184 HCA
 TITLE: Coating compositions containing at least 3
 components and their manufacture and use
 INVENTOR(S): Mayer, Bernd; Nienhaus, Egbert; Rink,
 Heinz-Peter; Meisenburg, Uwe
 PATENT ASSIGNEE(S): Basf Lacke + Farben Ag, Germany
 SOURCE: Ger. Offen., 22 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|------------------|----------|
| DE 19542626 | A1 | 19970424 | DE 1995-19542626 | 19951115 |
| CA 2235077 | AA | 19970424 | CA 1996-2235077 | 19961017 |
| WO 9714731 | A1 | 19970424 | WO 1996-EP4473 | 19961017 |
| W: BR, CA, CN, JP, KR, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| EP 856019 | A1 | 19980805 | EP 1996-934685 | 19961017 |
| EP 856019 | B1 | 19990922 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, NL, SE | | | | |
| CN 1200130 | A | 19981125 | CN 1996-197678 | 19961017 |
| AT 184888 | E | 19991015 | AT 1996-934685 | 19961017 |
| JP 11513721 | T2 | 19991124 | JP 1996-515513 | 19961017 |
| ES 2139390 | T3 | 20000201 | ES 1996-934685 | 19961017 |
| BR 9610946 | A | 19990713 | BR 1996-10946 | 19980420 |
| PRIORITY APPLN. INFO.: | | | DE 1995-19538956 | 19951019 |
| | | | DE 1995-19542626 | 19951115 |
| | | | WO 1996-EP4473 | 19961017 |
| AB Coating compns. giving high-gloss films with good flow, useful for | | | | |

repairing automobile coatings, for coating of plastics, and for topcoats and surface fillers, are prepd. from 3-4 components. One component (A) is composed of (A1) .gtoreq.1 neutralizable, solvent- and(or) water-thinnable OH and acid group-contg. acrylate copolymer with no.-av. mol. wt. 1000-30,000, OH no. 40-200 mg KOH/g, and acid no. 5-150 mg KOH/g and(or) (A2) .gtoreq.1 neutralizable, solvent- and(or) water-thinnable OH and acid group-contg. polyester with no.-av. mol. wt. 1000-30,000, OH no. 30-250 mg KOH/g, and acid no. 5-150 mg KOH/g, and(or) (A3) neutralizable, solvent- and(or) water-thinnable OH and acid group-contg. polyurethane with no.-av. mol. wt. 1000-30,000, OH no. 30-250 mg KOH/g, and acid no. 5-150 mg KOH/g, whereby (A1), (A2), and (A3) are so selected that a 50% soln. of (A) in ethoxyethyl propionate is .ltoreq.6 dPa s. Another component is a crosslinker and is based on .gtoreq.1 solvent-thinnable di- and(or) polyisocyanate and(or) .gtoreq.1 other crosslinker based on an epoxide compd. having .gtoreq.2 epoxide groups and(or) an aminoplast. Another component is based on component (A1) and(or) (A2) and(or) (A3) in an aq. dispersion. The coating compns. are manufd. by mixing (A) in a solvent, and then adding the crosslinker and the 3rd component. A typical coating compn. was manufd. by mixing a compn. contg. 54:285:382:640:229:238 acrylic acid-Bu acrylate-hydroxyethyl acrylate-lauryl methacrylate-Me methacrylate-styrene copolymer (I) 14, ethylene glycol mono-Bu ether acetate 3.6, ethylene glycol mono-bu ether 3, wetting agent 1, and flow-control agent 0.8 parts with a crosslinker contg. allophanate-based HDI polyisocyanate 2.9, HDI-based isocyanurate trimer 10.7, and ethoxyethyl propionate 1.6 parts, followed by addn. of a 3rd component contg. water 29, dimethylethanolamine 0.45, thickener 1.9, 38% solids I dispersion 8.9, 36% solids 27.6:69:489:1088:1268:120:318:101 2-butyl-2-ethylpropanediol-dimethylolpropionic acid-neopentyl glycol-neopentyl glycol hydroxypivalate-isophthalic acid-phthalic anhydride-m-tetramethylxylene diisocyanate-trimethylolpropane copolymer dispersion 17.5 parts.

IT 190073-56-4P

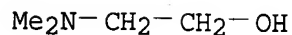
(coating compns. contg. at least 3 components for high-gloss films with good flow)

RN 190073-56-4 HCA

CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-bis(1-isocyanato-1-methylethyl)benzene, 2-butyl 2-ethyl-1,3-propanediol, butyl 2-methyl-2-propenoate, Desmodur VPLS 2102, 2,2-dimethyl-1,3-propanediol, dodecyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 3-hydroxy-2,2-dimethylpropyl 3-hydroxy-2,2-dimethylpropanoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 1,3-isobenzofurandione, methyl 2-methyl-2-propenoate, 2-propenoic acid and 1,3,5-tris(6-isocyanatohexyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione, compd. with 2-(dimethylamino)ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 108-01-0
CMF C4 H11 N O



CM 2

CRN 190073-55-3

CMF (C24 H36 N6 O6 . C16 H30 O2 . C14 H16 N2 O2 . C10 H20 O4 . C9
H20 O2 . C8 H14 O2 . C8 H8 . C8 H6 O4 . C8 H4 O3 . C6 H14 O3 .
C6 H10 O3 . C5 H12 O2 . C5 H10 O4 . C5 H8 O3 . C5 H8 O2 . C3 H4
O2 . Unspecified)x

CCI PMS

CM 3

CRN 174594-29-7

CMF Unspecified

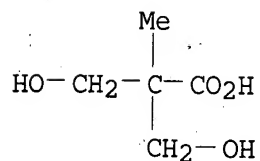
CCI PMS, MAN

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CM 4

CRN 4767-03-7

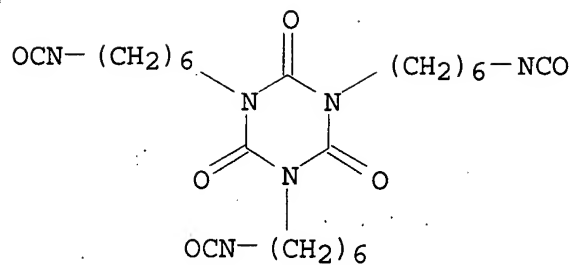
CMF C5 H10 O4



CM 5

CRN 3779-63-3

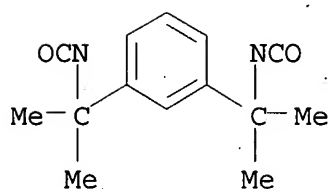
CMF C24 H36 N6 O6



CM 6

CRN 2778-42-9

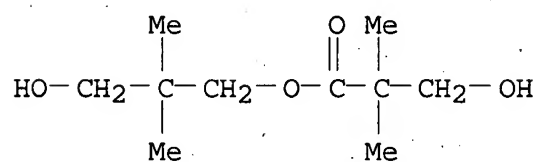
CMF C14 H16 N2 O2



CM 7

CRN 1115-20-4

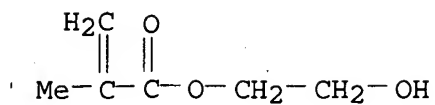
CMF C10 H20 O4



CM 8

CRN 868-77-9

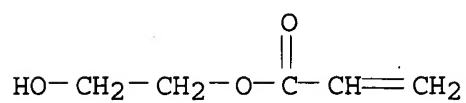
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CM 9

CRN 818-61-1

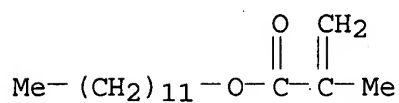
CMF C5 H8 O3



CM 10

CRN 142-90-5

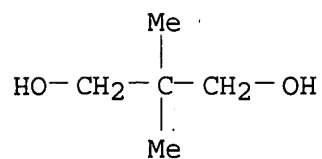
CMF C16 H30 O2



CM 11

CRN 126-30-7

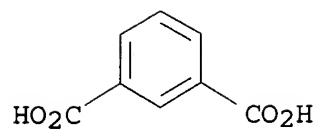
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CM 12

CRN 121-91-5

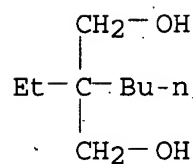
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CM 13

CRN 115-84-4

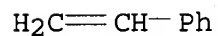
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CM 14

CRN 100-42-5

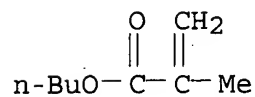
CMF C8 H8



CM 15

CRN 97-88-1

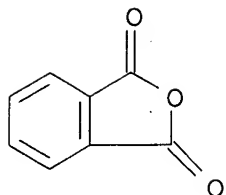
CMF C8 H14 O2



CM 16

CRN 85-44-9

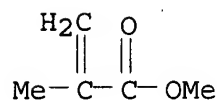
CMF C8 H4 O3



CM 17

CRN 80-62-6

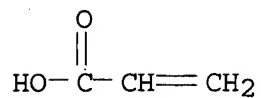
CMF C5 H8 O2



CM 18

CRN 79-10-7

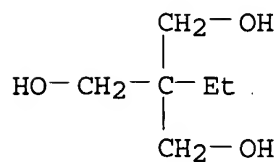
CMF C3 H4 O2



CM 19

CRN 77-99-6

CMF C6 H14 O3



IT 190073-54-2P

(cured coating; coating compns. contg. at least 3 components for high-gloss films with good flow)

RN 190073-54-2 HCA

CN 1,3-Benzenedicarboxylic acid, polymer with 1,3-bis(1-isocyanato-1-methylethyl)benzene, 2-butyl-2-ethyl-1,3-propanediol, butyl 2-methyl-2-propenoate, Desmodur VPLS 2102, 2,2-dimethyl-1,3-propanediol, dodecyl 2-methyl-2-propenoate, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 3-hydroxy-2,2-dimethylpropyl 3-hydroxy-2,2-dimethylpropanoate, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 1,3-isobenzofurandione, methyl 2-methyl-2-propenoate, 2-propenoic acid and Tolonate HDT-LV, compd. with 2-(dimethylamino)ethanol (9CI)
(CA INDEX NAME)

CM 1

CRN 108-01-0

CMF C4 H11 N O

Me₂N-CH₂-CH₂-OH

CM 2

CRN 190073-53-1

CMF (C16 H30 O2 . C14 H16 N2 O2 . C10 H20 O4 . C9 H20 O2 . C8 H14 O2 . C8 H8 . C8 H6 O4 . C8 H4 O3 . C6 H14 O3 . C6 H10 O3 . C5 H12 O2 . C5 H10 O4 . C5 H8 O3 . C5 H8 O2 . C3 H4 O2 . Unspecified . Unspecified)x

CCI PMS

CM 3

CRN 174594-29-7

CMF Unspecified

CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 4

CRN 138861-14-0

CMF Unspecified

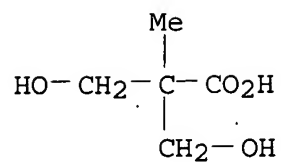
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 5

CRN 4767-03-7

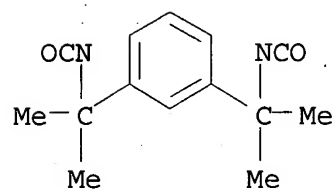
CMF C5 H10 O4



CM 6

CRN 2778-42-9

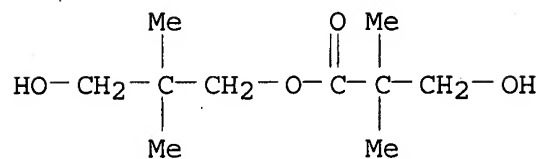
CMF C14 H16 N2 O2



CM 7

CRN 1115-20-4

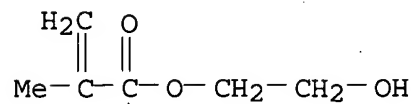
CMF C10 H20 O4



CM 8

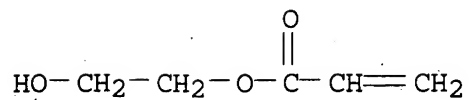
CRN 868-77-9

CMF C6 H10 O3



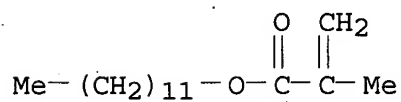
CM 9

CRN 818-61-1
CMF C5 H8 O3



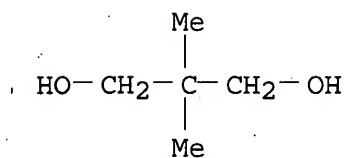
CM 10

CRN 142-90-5
CMF C16 H30 O2



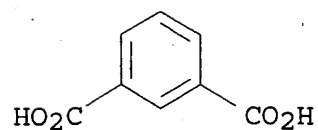
CM 11

CRN 126-30-7
CMF C5 H12 O2



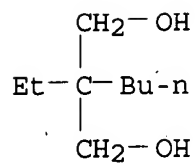
CM 12

CRN 121-91-5
CMF C8 H6 O4



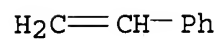
CM 13

CRN 115-84-4
CMF C9 H20 O2



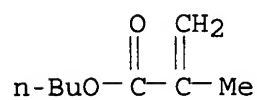
CM 14

CRN 100-42-5
CMF C8 H8



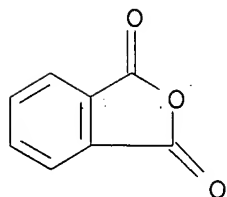
CM 15

CRN 97-88-1
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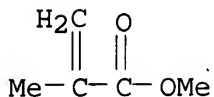
CM 16

CRN 85-44-9
CMF C8 H4 O3



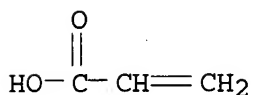
CM 17

CRN 80-62-6
CMF C5 H8 O2



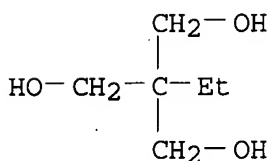
CM 18

CRN 79-10-7
CMF C3 H4 O2



CM 19

CRN 77-99-6
CMF C6 H14 O3



IC ICM C09D175-04
ICS C09D133-04; C09D167-00; C09D005-02; C08G063-12; C08G063-20;
C08G018-32; C08G018-72; C08G018-10; C08F220-18; B05D007-16
ICA C08G063-40
ICI C09D175-04, C09D163-00, C09D161-20; C09D133-04, C09D167-00,
C09D175-04, C09D167-06, C09D175-14
CC 42-10 (Coatings, Inks, and Related Products)
IT **Coatings**
(coating compns. contg. at least 3 components for high-gloss
films with good flow)
IT 190073-56-4P
(coating compns. contg. at least 3 components for high-gloss
films with good flow)
IT 190073-54-2P
(cured coating; coating compns. contg. at least 3 components for
high-gloss films with good flow)

no iso

L62 ANSWER (5) OF 9 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 123:202333 HCA
TITLE: Aqueous coating composition for intercoating and
topcoating of motor vehicles
INVENTOR(S): Nishi, Tadahiko; Ogawa, Hideaki; Tanabe, Hisaki;
Takeuchi, Kunihiro
PATENT ASSIGNEE(S): Nippon Paint Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 28 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| EP 638621 | A1 | 19950215 | EP 1994-305920 | 19940810 |
| EP 638621 | B1 | 19971112 | | |
| R: DE, FR, GB | | | | |
| CA 2129720 | AA | 19950211 | CA 1994-2129720 | 19940808 |
| AU 9468995 | A1 | 19950223 | AU 1994-68995 | 19940809 |
| AU 674587 | B2 | 19970102 | | |
| US 5525670 | A | 19960611 | US 1994-287902 | 19940809 |
| JP 08012925 | A2 | 19960116 | JP 1994-188215 | 19940810 |
| PRIORITY APPLN. INFO.: | | | JP 1993-198329 | 19930810 |
| | | | JP 1994-91796 | 19940428 |

AB The coating compn. has improved workability (e.g., pinhole resistance, sagging resistance) and smoothness, and comprises (A) an acrylic resin and/or a polyester having acid value 10-100, hydroxyl value 20-300 and no. av.-mol. wt. 1,000-50,000; (B) an OH-terminated polycarbonate having no. av.-mol. wt. 1000-10,000; and (C) a curing agent (e.g., melamine resin). The coating is applied in a 2-coat/1-bake process, where pigmented coating is applied and then coated wet-on-wet with clear topcoating, then both are cured simultaneously.

IT 168261-13-0

(aq. coatings for automotive vehicles)

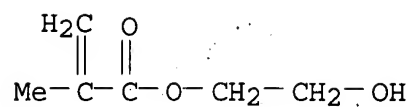
RN 168261-13-0 HCA

CN 2-Propenoic acid, 2-methyl-, polymer with 2-butyl-2-ethyl-1,3-propanediol, butyl 2-propenoate, dimethyl carbonate, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, formaldehyde, 2-hydroxyethyl 2-methyl-2-propenoate, 2-methoxyethanol, methyl 2-methyl-2-propenoate, 2-propenamide and 1,3,5-triazine-2,4,6-triamine (9CI) (CA INDEX NAME)

CM 1

CRN 868-77-9

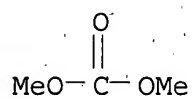
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CM 2

CRN 616-38-6

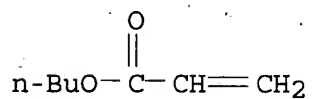
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CM 3

CRN 141-32-2

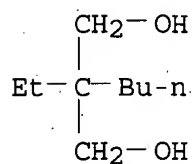
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CM 4

CRN 115-84-4

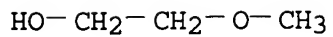
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CM 5

CRN 109-86-4

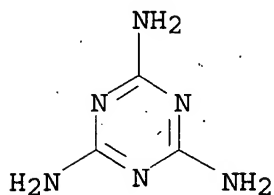
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CM 6

CRN 108-78-1

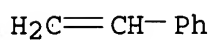
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CM 7

CRN 100-42-5

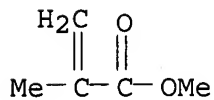
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CM 8

CRN 80-62-6

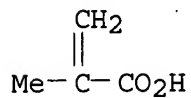
CMF C5 H8 O2



CM 9

CRN 79-41-4

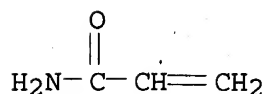
CMF C4 H6 O2



CM 10

CRN 79-06-1

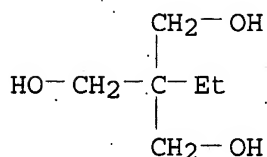
CMF C3 H5 N O



CM 11

CRN 77-99-6

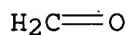
CMF C6 H14 O3



CM 12

CRN 50-00-0

CMF C H2 O



IC ICM C09D133-06

ICS C09D167-00; C09D169-00

CC 42-10 (Coatings, Inks, and Related Products)

IT **Coating materials**

(water-thinned, coatings, fatty acid-modified alkyd resins and acrylic resins and polyester resins)

IT 168261-08-3 168261-09-4 168261-10-7 168261-11-8 168261-12-9

168261-13-0 168261-14-1 168261-15-2 168261-16-3

(aq. coatings for automotive vehicles)

IT 70677-00-8, Butyl acrylate-2-hydroxyethyl acrylate-methacrylic acid-methyl methacrylate-styrene copolymer

(clear coating; on aq. coatings contg.

acrylic resins, polycarbonates and polyesters)

L62 ANSWER 6 OF 9 HCA COPYRIGHT 2000 ACS

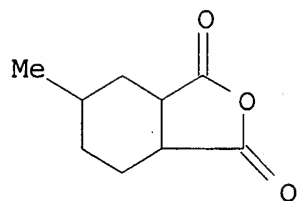
ACCESSION NUMBER: 122:136251 HCA
TITLE: Scratch-resistant aqueous compositions for
beverage or food cans
INVENTOR(S): Yamada, Takashi; Tsuyama, Takeshi
PATENT ASSIGNEE(S): Toyo Mfg Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-----|---|------|----------|-----------------|----------|
| | ----- | ---- | ----- | ----- | ----- |
| | JP 06172698 | A2 | 19940621 | JP 1992-351977 | 19921209 |
| | JP 2884973 | B2 | 19990419 | | |
| AB | Title compns. contain low amts. (preferably, <20%) of org. solvents and polymer components comprising COOH-contg. polymers (acid value 30-150) 5-50, aminoplasts 20-60, and acid anhydride ester-modified epoxy resin-based graft vinyl polymer blends 5-70%. An aq. compn. contained 1,4-butane diol-Bu Et propane diol-diethylene glycol-hexahydrophthalic anhydride-isophthalic acid-trimethylolpropane copolymer 15, Cymel 303 25, Cymel 1123 10, and a graft polymer (prepd. by polyimg. Et acrylate, 2-hydroxyethyl acrylate, and methacrylic acid in the presence of Rikacid MH 700-modified Epikote 1010) 50 parts. | | | | |
| IT | 160877-22-5 160909-55-7 (scratch-resistant; aq. coatings contg. carboxy-contg. resins and aminoplasts and acrylic polyester epoxy resins for beverage cans) | | | | |
| RN | 160877-22-5 HCA | | | | |
| CN | 1,3-Benzenedicarboxylic acid, polymer with 1,4-butanediol, 2-butyl-2-ethyl-1,3-propanediol, ethenylbenzene, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate, hexahydro-1,3-isobenzofurandione, hexahydro-5-methyl-1,3-isobenzofurandione, 2-hydroxyethyl 2-methyl-2-propenoate, 2-hydroxyethyl 2-propenoate, N-(methoxymethyl)-2-propenamide, 2,2'-oxybis[ethanol], Pheno Tohto YP 50S and 2-propenoic acid (9CI) (CA INDEX NAME) | | | | |
| CM | 1 | | | | |
| CRN | 157481-46-4 | | | | |
| CMF | Unspecified | | | | |
| CCI | PMS, MAN | | | | |

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

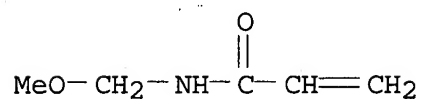
CM 2

CRN 19438-60-9
CMF C9 H12 O3



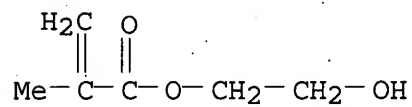
CM 3

CRN 3644-11-9
 CMF C5 H9 N O2



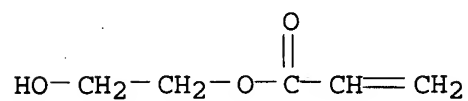
CM 4

CRN 868-77-9
 CMF C6 H10 O3



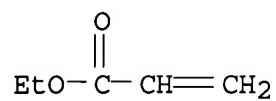
CM 5

CRN 818-61-1
 CMF C5 H8 O3



CM 6

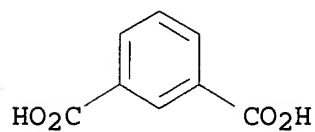
CRN 140-88-5
 CMF C5 H8 O2



CM 7

CRN 121-91-5

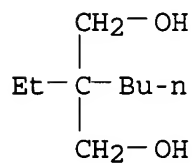
CMF C8 H6 O4



CM 8

CRN 115-84-4

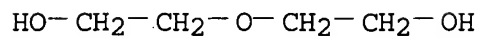
CMF C9 H20 O2



CM 9

CRN 111-46-6

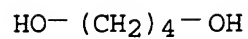
CMF C4 H10 O3



CM 10

CRN 110-63-4

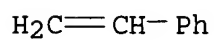
CMF C4 H10 O2



CM 11

CRN 100-42-5

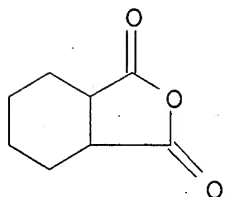
CMF C8 H8



CM 12

CRN 85-42-7

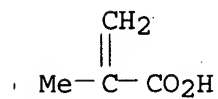
CMF C8 H10 O3



CM 13

CRN 79-41-4

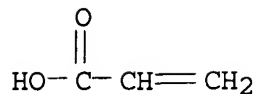
CMF C4 H6 O2



CM 14

CRN 79-10-7

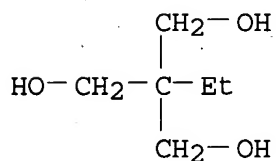
CMF C3 H4 O2



CM 15

CRN 77-99-6

CMF C6 H14 O3



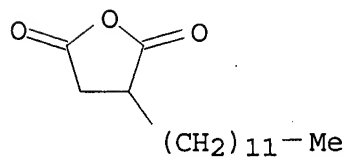
RN 160909-55-7 HCA

CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-butanediol, 2-butyl-2-ethyl-1,3-propanediol, (chloromethyl)oxirane, 3-dodecyldihydro-2,5-furandione, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, ethyl 2-propenoate, hexahydro-1,3-isobenzofurandione, 2-hydroxyethyl 2-methyl-2-propenoate, 4,4'-(1-methylethylidene)bis[phenol], methyl 2-methyl-2-propenoate, 2-methyl-2-propenoic acid and 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 2561-85-5

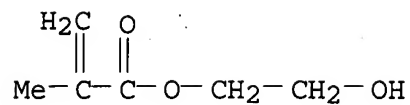
CMF C16 H28 O3



CM 2

CRN 868-77-9

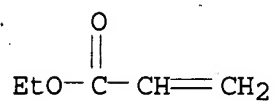
CMF C6 H10 O3



CM 3

CRN 140-88-5

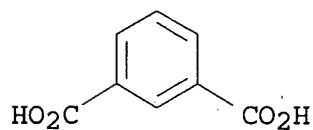
CMF C5 H8 O2



CM 4

CRN 121-91-5

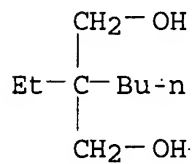
CMF C8 H6 O4



CM 5

CRN 115-84-4

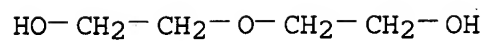
CMF C9 H20 O2



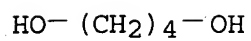
CM 6

CRN 111-46-6

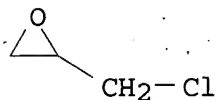
CMF C4 H10 O3



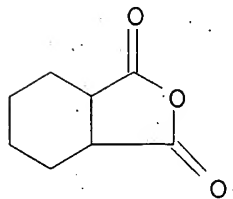
CM 7

CRN 110-63-4
CMF C4 H10 O2

CM 8

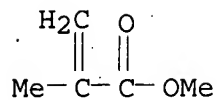
CRN 106-89-8
CMF C3 H5 Cl O

CM 9

CRN 85-42-7
CMF C8 H10 O3

CM 10

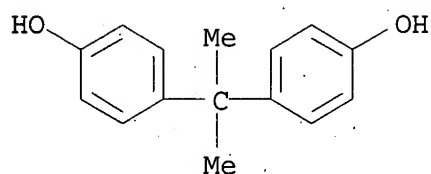
CRN 80-62-6
CMF C5 H8 O2



CM 11

CRN 80-05-7

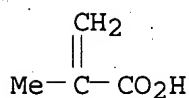
CMF C15 H16 O2



CM 12

CRN 79-41-4

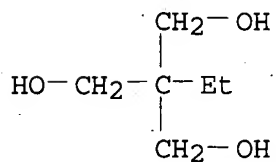
CMF C4 H6 O2



CM 13

CRN 77-99-6

CMF C6 H14 O3



IC ICM C09D163-00

ICS C08G059-16; C09D151-00; C09D161-20; C09D201-08

CC 42-10 (Coatings, Inks, and Related Products)

IT **Coating materials**

(scratch-resistant, aq. coatings contg. carboxy-contg. resins and

aminoplasts and acrylic polyester epoxy resins for beverage cans)
 IT 160877-20-3 160877-21-4 160877-22-5 160877-23-6
 160877-24-7 160909-55-7

(scratch-resistant; aq. coatings contg. carboxy-contg. resins and
 aminoplasts and acrylic polyester epoxy resins for beverage cans)

L62 ANSWER 7 OF 9 HCA COPYRIGHT 2000 ACS

ACCESSION NUMBER: 120:166928 HCA

TITLE: Polyurethane-vinyl polymer block
 copolymer-containing magnetic coatings

INVENTOR(S): Kinoshita, Koji; Nakama, Yasutaka; Komazaki,
 Shigeru; Oooka, Masataka

PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

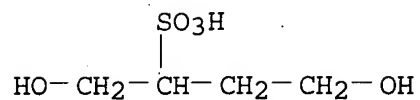
PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|---|------|----------|-----------------|----------|
| | JP 05230399 | A2 | 19930907 | JP 1992-31965 | 19920219 |
| AB | Title coatings contain magnetic powders, title block copolymers, and polyester-polyurethanes. A compn. contg. Fe-Ni alloy powders, Burnock D 750, adipic acid-1,4-butylene glycol-TDI copolymer, and a block copolymer prepd. from styrene, Me methacrylate, 2-hydroxyethyl methacrylate, 2-acrylamido-2-methylpropanesulfonic acid, and azobiscyanopropanol-dipropylene glycol-HMDI copolymer gave a film with good smoothness, abrasion resistance, and durability under heat and moisture. | | | | |
| IT | 153254-00-3P | | | | |
| | (prepn. of, magnetic coatings contg., with polyester-polyurethanes and/or polyisocyanate) | | | | |
| RN | 153254-00-3 | HCA | | | |
| CN | 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2-butyl-2-ethyl-1,3-propanediol, 1,4-dihydroxy-2-butanefulfonic acid monosodium salt, 1,6-diisocyanatohexane, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate and 2-methyl-2-[(1-oxo-2-propenyl)amino]-1-propanesulfonic acid monosodium salt, block (9CI) (CA INDEX NAME) | | | | |

CM 1

CRN 35430-88-7

CMF C4 H10 O5 S . Na

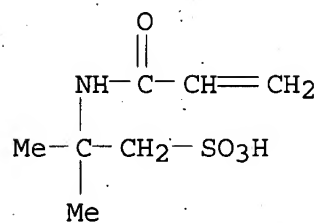


● Na

CM 2

CRN 5165-97-9

CMF C7 H13 N O4 S . Na

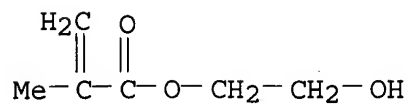


● Na

CM 3

CRN 868-77-9

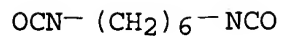
CMF C6 H10 O3



CM 4

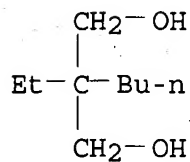
CRN 822-06-0

CMF C8 H12 N2 O2



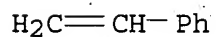
CM 5

CRN 115-84-4
CMF C9 H20 O2



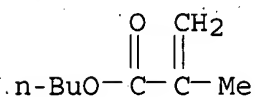
CM 6

CRN 100-42-5
CMF C8 H8



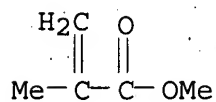
CM 7

CRN 97-88-1
CMF C8 H14 O2



CM 8

CRN 80-62-6
CMF C5 H8 O2



IC ICM C09D005-23

ICS C09D175-04; G11B005-702
 CC 42-10 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 77
 IT **Coating materials**
 (abrasion-resistant, magnetic, acrylic urethane block
 polymer-contg., with polyester-polyurethanes and magnetic powder)
 IT 153253-94-2P 153253-95-3P 153253-96-4P 153253-97-5P
 153253-98-6P 153253-99-7P **153254-00-3P**
 (prepn. of, magnetic coatings contg., with polyester-
 polyurethanes and/or polyisocyanate)

L62 ANSWER **(8)** OF 9 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 120:109037 HCA
 TITLE: Vinyl polymer-polyurethane block copolymer
 binders for magnetic coatings
 INVENTOR(S): Kinoshita, Koji; Komazaki, Shigeru; Oooka,
 Masataka
 PATENT ASSIGNEE(S): Dainippon Ink & Chemicals, Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| | JP 05171071 | A2 | 19930709 | JP 1991-343064 | 19911225 |
| AB | Magnetic coatings with good abrasion resistance, smoothness, and luster are prepd. by using binders comprising vinyl polymer-polyurethane block copolymers contg. groups SO3X and/or CO2X (X = quaternary ammonium group). A compn. contg. Fe-Ni powder, Me4NOH-neutralized Me methacrylate-tert-Bu methacrylate-2-hydroxyethyl methacrylate-2-acrylamido-2-methylpropanesulfonic acid block copolymer, and HMDI-azobis(cyanopropanol)-dipropylene glycol copolymer initiator was used to prep. magnetic coatings. | | | | |
| IT | 152690-04-5D , quaternary ammonium salts (magnetic coatings contg., smooth, abrasion-resistant) | | | | |
| RN | 152690-04-5 | HCA | | | |
| CN | 2-Propenoic acid, 2-methyl-, butyl ester, polymer with ammonium 2-methyl-2-propenoate, Burnock D 750, 2-butyl-2-ethyl-1,3-propanediol, 1,4-dihydroxy-2-butanedisulfonic acid monosodium salt, 2-hydroxyethyl 2-methyl-2-propenoate, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and methyl 2-methyl-2-propenoate, block (9CI) (CA INDEX NAME) | | | | |

CM 1

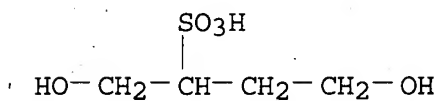
CRN 50813-68-8
 CMF Unspecified
 CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 35430-88-7

CMF C4 H10 O5 S . Na

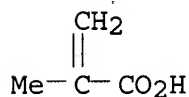


● Na

CM 3

CRN 16325-47-6

CMF C4 H6 O2 . H3 N

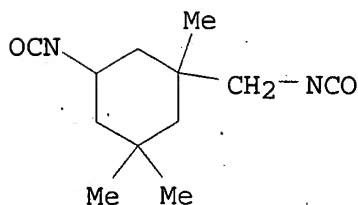


● NH₃

CM 4

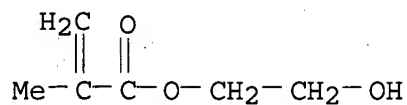
CRN 4098-71-9

CMF C12 H18 N2 O2



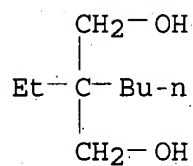
CM 5

CRN 868-77-9
CMF C6 H10 O3



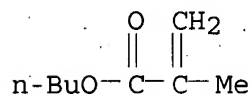
CM 6

CRN 115-84-4
CMF C9 H20 O2



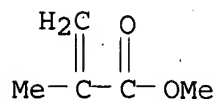
CM 7

CRN 97-88-1
CMF C8 H14 O2



CM 8

CRN 80-62-6
CMF C5 H8 O2



IC ICM C09D005-23
ICS C09D153-00

ICA C08F293-00
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 42, 77
 IT **Coating materials**
 (abrasion-resistant, magnetic, vinyl polymer-urethane block
 copolymer binders for smooth)
 IT 146227-45-4D, quaternary ammonium salts 152690-04-5D,
 quaternary ammonium salts 152725-79-6D, quaternary ammonium salts
 152725-80-9D, quaternary ammonium salts 152725-81-0D, quaternary
 ammonium salts 152725-82-1D, quaternary ammonium salts
 152956-13-3D, quaternary ammonium salts
 (magnetic coatings contg., smooth, abrasion-resistant)

L62 ANSWER 9 OF 9 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 116:22986 HCA
 TITLE: Water-thinned compositions for multilayer
 coatings
 INVENTOR(S): Hartung, Michael; Grabbe, Michael; Mayenfels,
 Peter
 PATENT ASSIGNEE(S): BASF Lacke und Farben A.-G., Germany
 SOURCE: Ger. Offen., 9 pp.
 CODEN: GWXXBX
 DOCUMENT TYPE: Patent
 LANGUAGE: German
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| DE 4010176 | A1 | 19911002 | DE 1990-4010176 | 19900330 |
| WO 9115528 | A1 | 19911017 | WO 1991-EP464 | 19910313 |
| W: BR, JP, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE | | | | |
| EP 521928 | A1 | 19930113 | EP 1991-906285 | 19910313 |
| EP 521928 | B1 | 19940831 | | |
| R: AT, BE, CH, DE, DK, ES, FR, IT, LI, NL, SE | | | | |
| JP 05501124 | T2 | 19930304 | JP 1991-505721 | 19910313 |
| JP 07033490 | B4 | 19950412 | | |
| BR 9106292 | A | 19930413 | BR 1991-6292 | 19910313 |
| ES 2064096 | T3 | 19950116 | ES 1991-906285 | 19910313 |
| US 5334420 | A | 19940802 | US 1992-927510 | 19920916 |
| PRIORITY APPLN. INFO.: | | | DE 1990-4010176 | 19900330 |
| | | | WO 1991-EP464 | 19910313 |

AB The title compns., useful as primers for 2-coat 1-bake coatings, are
 prepd. by polymg. unsatd. monomers in org. solvents contg.
 polyurethanes [no.-av. mol. wt. (Mn) 200-30,000] contg. 0.5-1.1
 polymerizable double bonds/mol. A polyurethane was prepd. from
 adipic acid-hexanediol-neopentyl glycol (I) polyester (Mn 630) 336,
 I 31, trimethylolpropane (II) monoallyl ether 27.8, II 66.7, and
 IPDI 275 g in MEK, heated with Bu acrylate 312.5, MMA 312.5,
 hydroxypropyl acrylate 74.7, and acrylic acid 58.4 g and AIBN for 6
 h at 82.degree., mixed with 56.9 g Me2NCH2CH2OH and H2O, and

stripped off MEK in vacuo to give a 40% aq. polymer dispersion with pH 8.1 and av. particle size 100 nm. This dispersion was used as a primer for a 2-coat 1-bake coating with good flow, gloss, mech. properties, and corrosion resistance.

IT 138216-62-3 138216-63-4

(primers, water-thinned, for 2-coat 1-bake coatings)

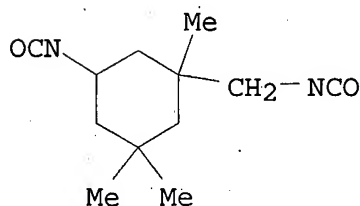
RN 138216-62-3 HCA

CN Hexanedioic acid, polymer with 2-butyl-2-ethyl-1,3-propanediol, butyl 2-propenoate, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2-ethyl-2-[(2-propenyloxy)methyl]-1,3-propanediol, 2,5-furandione, 1,6-hexanediol, 2-hydroxypropyl 2-methyl-2-propenoate, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, methyl 2-methyl-2-propenoate and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 4098-71-9

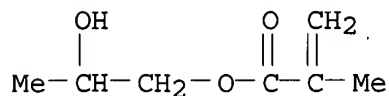
CMF C12 H18 N2 O2



CM 2

CRN 923-26-2

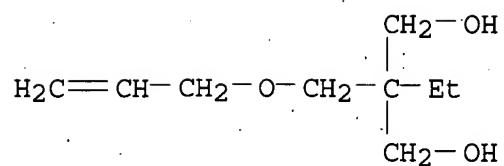
CMF C7 H12 O3



CM 3

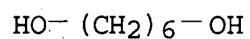
CRN 682-11-1

CMF C9 H18 O3



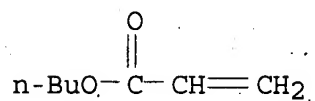
CM 4

CRN 629-11-8
CMF C6 H14 O2



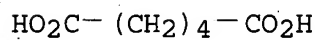
CM 5

CRN 141-32-2
CMF C7 H12 O2



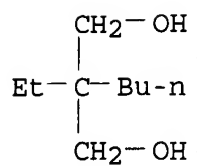
CM 6

CRN 124-04-9
CMF C6 H10 O4



CM 7

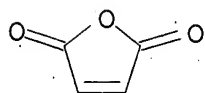
CRN 115-84-4
CMF C9 H20 O2



CM 8

CRN 108-31-6

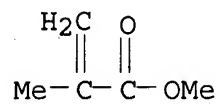
CMF C4 H2 O3



CM 9

CRN 80-62-6

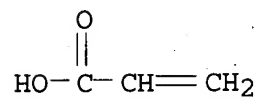
CMF C5 H8 O2



CM 10

CRN 79-10-7

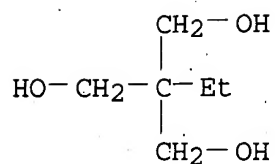
CMF C3 H4 O2



CM 11

CRN 77-99-6

CMF C6 H14 O3



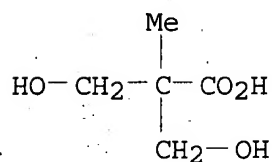
RN 138216-63-4 HCA

CN Hexanedioic acid, polymer with 2-butyl-2-ethyl-1,3-propanediol, butyl 2-propenoate, 2-ethyl-2-(hydroxymethyl)-1,3-propanediol, 2-ethyl-2-[(2-propenyloxy)methyl]-1,3-propanediol, 1,6-hexanediol, 3-hydroxy-2-(hydroxymethyl)-2-methylpropanoic acid, 2-hydroxypropyl 2-methyl-2-propenoate, 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane, methyl 2-methyl-2-propenoate and 2-propenoic acid, graft (9CI) (CA INDEX NAME)

CM 1

CRN 4767-03-7

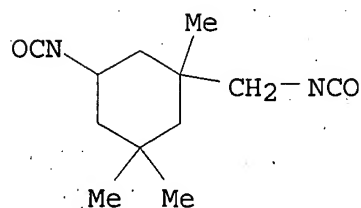
CMF C5 H10 O4



CM 2

CRN 4098-71-9

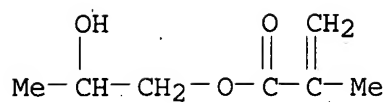
CMF C12 H18 N2 O2



CM 3

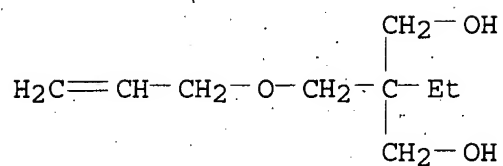
CRN 923-26-2

CMF C7 H12 O3



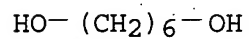
CM 4

CRN 682-11-1
CMF C9 H18 O3



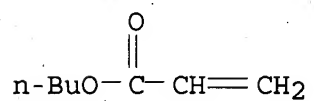
CM 5

CRN 629-11-8
CMF C6 H14 O2



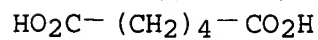
CM 6

CRN 141-32-2
CMF C7 H12 O2

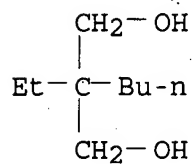


CM 7

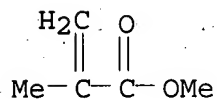
CRN 124-04-9
CMF C6 H10 O4



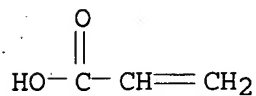
CM 8

CRN 115-84-4
CMF C9 H20 O2

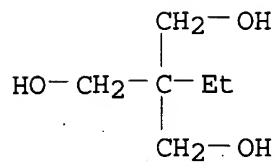
CM 9

CRN 80-62-6
CMF C5 H8 O2

CM 10

CRN 79-10-7
CMF C3 H4 O2

CM 11

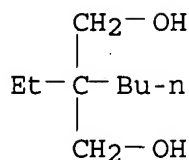
CRN 77-99-6
CMF C6 H14 O3

IC ICM B05D007-24
 ICS B05D007-26; B05D001-36; C09D151-08; C09D005-02
 ICA C08G018-67; C08F283-00
 ICI C09D151-08, C09D175-14, C09D133-06, C09D133-14, C09D133-02,
 C09D135-00, C09D125-02, C09D133-24, C09D131-08, C09D131-02,
 C09D129-10, C09D139-04, C09D133-22
 CC 42-7 (Coatings, Inks, and Related Products)
 IT **Coating materials**
 (primers, water-thinned, acrylic compd.-grafted
 polyester-polyurethanes, for 2-coat 1-bake coatings)
 IT 138216-61-2 138216-62-3 138216-63-4
 (primers, water-thinned, for 2-coat 1-bake coatings)

=> d 163 1-6 ibib abs hitstr hitind

L63 ANSWER ① OF 6 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 129:331972 HCA
 TITLE: Polymer modifiers containing polyesters and
 nitrogen-containing compounds, polymer
 compositions, and their moldings
 INVENTOR(S): Kitahara, Shizuo; Ikeda, Shinya
 PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|---|----------|-----------------|----------|
| JP 10265655 | A2 | 19981006 | JP 1997-73909 | 19970326 |
| AB | Modifiers for improvement of coatability of resin and rubber moldings contain polyesters, which are obtained from polyhydric alcs. and polycarboxylic acids and show OH value .gtoreq.30 mg KOH/g and Mw 1000-500,000, and N-contg. compds. Thus, a rubber sheet comprising EPT 3070 (EPDM) 100, Seast 116 50, Diana Process Oil PW 380 60, ZnO 5, stearic acid 1, light CaCO3 60, S 1.0, vulcanization accelerators 3.25, terephthalic acid-2,2-dipropyl-1,3-propanediol-ditrimethylolpropane copolymer 10, and U-CAT SA 102 2 parts was coated with a urethane coating to give a test piece showing peeling strength 0.9 kg/cm. | | | |
| IT | 115-84-4DP, polymers with Haridimer 250 and diethylene glycol and pentaerythritol (polymer modifiers contg. polyesters and N-contg. compds. for improvement of coatability of moldings) | | | |
| RN | 115-84-4 HCA | | | |
| CN | 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) | | | |



IC ICM C08L067-00
 ICS C08J005-02; C08J007-04; C08K005-16; C08L021-00; C08L101-00
 CC 39-9 (Synthetic Elastomers and Natural Rubber)
 Section cross-reference(s): 37
 IT 111-46-6DP, polymers with Haridimer 250 and butylethylpropanediol
 and pentaerythritol 115-76-4DP, 2,2-Diethyl-1,3-propanediol,
 polymers with pentaerythritol and Haridimer 250 115-77-5DP,
 polymers with Haridimer 250 115-84-4DP, polymers with
 Haridimer 250 and diethylene glycol and pentaerythritol
 197806-48-7P, 2-Butyl-2-ethyl-1,3-propanediol-glycerol-terephthalic
 acid copolymer 208759-99-3P, 2-Butyl-2-ethyl-1,3-propanediol-
 dipentaerythritol-isophthalic acid-terephthalic acid copolymer
 214488-06-9P, 2-Butyl-2-ethyl-1,3-propanediol-neopentylglycol-
 pentaerythritol-terephthalic acid copolymer 214632-77-6P,
 2,2-Dipropyl-1,3-propanediol-ditrimethylolpropane-terephthalic acid
 copolymer
 (polymer modifiers contg. polyesters and N-contg. compds. for
 improvement of coatability of moldings)

L63 ANSWER (2) OF 6 HCA COPYRIGHT 2000 ACS
 ACCESSION NUMBER: 129:17112 HCA
 TITLE: Crosslinkable hydroxy terminated polydiene
 polymer coating compositions for use on
 substrates and their preparation
 INVENTOR(S): St. Clair, David John
 PATENT ASSIGNEE(S): Shell Oil Company, USA
 SOURCE: U.S., 13 pp.
 CODEN: USXXAM
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 2
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| US 5750627 | A | 19980512 | US 1996-748291 | 19961113 |
| US 5916941 | A | 19990629 | US 1998-5412 | 19980109 |
| US 5962077 | A | 19991005 | US 1998-5237 | 19980109 |
| US 6043316 | A | 20000328 | US 1998-5238 | 19980109 |
| PRIORITY APPLN. INFO.: | | | US 1995-6816 | 19951116 |
| | | | US 1996-28378 | 19961015 |
| | | | US 1996-748291 | 19961113 |

AB A crosslinkable compn. for coating primed and unprimed substrates
 comprises 10-80% hydroxy functional polydiene polymer having a

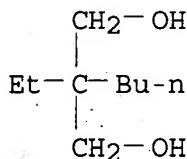
functionality .gtoreq.1.3, 8-60% amino resin crosslinking agent, and 2-40% reinforcing agent such as diol. The coating process includes partially reacting the 3 components for 0.5-10 h at 60-120.degree., optionally in the presence of a small amt. of catalyst, to give phase stable compns. and subsequently completely crosslinking the compn. by baking the compn. on a substrate. Thus, partial reaction of a compn. of hydroxy terminated hydrogenated polybutadiene (no.-av. mol. wt. 3300) 40, trimethylolpropane diol 20, Cymel 1156 40, Cycat 600 0.4, and naphtha 67 parts and casting onto cold rolled steel panels, and baking 20 min at 175.degree. gave a coating having pencil hardness HB, MEK double rubs >100, good clarity, gloss and mar resistance.

IT 115-84-4

(crosslinkable hydroxy-terminated polydiene polymer coating compns. for use on steel and thermoplastic olefin substrates for films with good hard surface qualities)

RN 115-84-4 HCA

CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C08F008-32

NCL 525162000

CC 42-10 (Coatings, Inks, and Related Products)

ST hard solvent resistant polydiene coating; aminoplast crosslinker hydroxy polydiene coating; diol reinforced crosslinked hydroxy polydiene coating; basecoat clearcoat automotive coating polydiene diol; precooking crosslinker polydiene diol coating process

IT 56-81-5, 1,2,3-Propanetriol, uses 57-55-6, 1,2-Propanediol, uses 77-85-0, Trimethylolethane 77-99-6 80-04-6, Hydrogenated bisphenol A 80-05-7, uses 94-96-2, 2-Ethyl-1,3-hexane diol 107-21-1, 1,2-Ethanediol, uses 110-63-4, 1,4-Butanediol, uses 115-84-4 126-30-7 144-19-4, 2,2,4-Trimethyl-1,3-pentane diol 504-63-2, 1,3-Propanediol 629-11-8, 1,6-Hexanediol 2163-42-0 27193-25-5, Cyclohexane dimethanol (crosslinkable hydroxy-terminated polydiene polymer coating compns. for use on steel and thermoplastic olefin substrates for films with good hard surface qualities)

L63 ANSWER 3 OF 6 HCA COPYRIGHT 2000 ACS

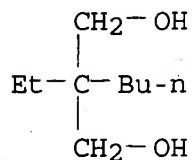
ACCESSION NUMBER: 128:271791 HCA

TITLE: Coating crosslinkable epoxidized monohydroxylated diene polymer coating compositions on primed substrates

INVENTOR(S): Saint Clair, David John
 PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B.V.,
 Neth.
 SOURCE: PCT Int. Appl., 35 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 9816327 | A1 | 19980423 | WO 1997-EP5764 | 19971014 |
| W: BR, CA, CN, JP, KR, MX | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| US 5922467 | A | 19990713 | US 1997-938289 | 19970926 |
| ZA 9709133 | A | 19980717 | ZA 1997-9133 | 19971013 |
| BR 9712295 | A | 19990831 | BR 1997-12295 | 19971014 |
| EP 948414 | A1 | 19991013 | EP 1997-912200 | 19971014 |
| R: BE, DE, ES, FR, GB, IT, NL | | | | |
| CN 1233197 | A | 19991027 | CN 1997-198785 | 19971014 |
| PRIORITY APPLN. INFO.: | | | US 1996-28500 | 19961015 |
| | | | WO 1997-EP5764 | 19971014 |

- AB. Various substrates (useful in automotive coating systems) are coated by (a) priming the substrate with a primer selected from epoxy resin primers and polyester resin primers; (b) next applying a crosslinkable basecoat compn. comprising 10-90% epoxidized monohydroxylated polydiene polymer, 8-60% amino resin crosslinking agent, and 2-40% reinforcing agent; and (c) applying over the basecoat a **clearcoat** selected from epoxidized monohydroxylated polydiene-based **clearcoats**, polyester **clearcoats**, and acrylic **clearcoats**. Primed steel panels were coated with a compn. contg. butadiene-isoprene-styrene block copolymer having OH and epoxy functionality 60; 2,2,4-trimethyl-1,3-pentanediol 10, Cymel 1141 30, acid catalyst 1, and solvent 67 parts and baked at 100.degree. to give hard coatings with good crosshatch adhesion.
- IT 115-84-4DP; 2-Butyl-2-ethyl-1,3-propanediol, polymer with epoxidized monohydroxylated diene polymer and amino crosslinker (crosslinkable epoxidized monohydroxylated diene polymer coating compns. on primed substrates in base **coat/clear coat** automotive systems)
- RN 115-84-4 HCA
- CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



- IC ICM B05D007-00
ICS C09D163-08
- CC 42-10 (Coatings, Inks, and Related Products)
- ST epoxidized monohydroxylated polydiene basecoat **clearcoat**;
amino crosslinked polydiene basecoat; polyester **clearcoat**
basecoat compn; acrylic **clearcoat** basecoat compn; epoxy
primer adhesion epoxidized polydiene basecoat; hard coating
epoxidized polydiene basecoat; mech property crosslinked epoxidized
polydiene coating
- IT Coatings
(hard; crosslinkable epoxidized monohydroxylated diene polymer
coating compns. on primed substrates in base **coat**/
clear coat automotive systems)
- IT 137463-89-9, Desmophen 670A-80
(**clear coat**; crosslinkable epoxidized
monohydroxylated diene polymer coating compns. on primed
substrates in base **coat/clear coat**
automotive systems)
- IT 115-84-4DP, 2-Butyl-2-ethyl-1,3-propanediol, polymer with
epoxidized monohydroxylated diene polymer and amino crosslinker
144-19-4DP, 2,2,4-Trimethyl-1,3-pentanediol, polymer with epoxidized
monohydroxylated diene polymer and amino crosslinker 71343-52-7DP,
Cymel 1141, polymer with epoxidized monohydroxylated diene polymer
109264-12-2DP, Butadiene-isoprene block copolymer, hydrogenated,
hydroxy and epoxy group-contg., polymer with amino resin
110389-01-0DP, Butadiene-isoprene-styrene block copolymer,
hydrogenated, hydroxy and epoxy group-contg., polymer with amino
resin
(crosslinkable epoxidized monohydroxylated diene polymer coating
compns. on primed substrates in base **coat/clear**
coat automotive systems)
- IT 12597-69-2, Steel, miscellaneous 205453-86-7, Dexflex 880
(good adhesion of basecoat; crosslinkable epoxidized
monohydroxylated diene polymer coating compns. on primed
substrates in base **coat/clear coat**
automotive systems)
- IT 56-81-5, 1,2,3-Propanetriol, uses 57-55-6; 1,2-Propanediol, uses
77-85-0, Trimethylolmethane 77-99-6 80-04-6 80-05-7, uses
94-96-2, 2-Ethyl-1,3-hexanediol 107-21-1, 1,2-Ethanediol, uses
110-63-4, 1,4-Butanediol, uses 126-30-7 504-63-2,
1,3-Propanediol 629-11-8, 1,6-Hexanediol 2163-42-0,
2-Methyl-1,3-propanediol 27193-25-5, Cyclohexanedimethanol
(reinforcing diol reactive with crosslinker; crosslinkable
epoxidized monohydroxylated diene polymer coating compns. on

primed substrates in base coat/clear
coat automotive systems)

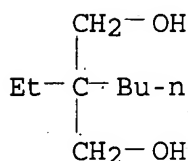
L63 ANSWER 4 OF 6 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 127:67437 HCA
TITLE: Crosslinkable hydroxy-functional polydiene
polymer coating compositions and a process for
preparing them.
INVENTOR(S): St. Clair, David John
PATENT ASSIGNEE(S): Shell Internationale Research Maatschappij B.V.,
Neth.
SOURCE: PCT Int. Appl., 53 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| WO 9718264 | A1 | 19970522 | WO 1996-EP5023 | 19961112 |
| W: BR, CA, CN, JP, KR, MX | | | | |
| RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2237566 | AA | 19970522 | CA 1996-2237566 | 19961112 |
| EP 861292 | A1 | 19980902 | EP 1996-939053 | 19961112 |
| EP 861292 | B1 | 20000607 | | |
| R: BE, DE, ES, FR, GB, IT, NL | | | | |
| CN 1205725 | A | 19990120 | CN 1996-199123 | 19961112 |
| JP 2000500181 | T2 | 20000111 | JP 1997-518593 | 19961112 |
| PRIORITY APPLN. INFO.: | | | | |
| | | | US 1995-6816 | 19951116 |
| | | | US 1996-28378 | 19961015 |
| | | | WO 1996-EP5023 | 19961112 |

AB A crosslinkable phase-stable compn., in particular for coating primed and unprimed substrates comprising from 10 to 80 percent by wt. of a hydroxy functional polydiene polymer having a functionality of at least 1.3, 8 to 60 percent by wt. of an amino resin crosslinking agent, and 2 to 40 percent by wt. of a reinforcing agent, which typically has ≥ 2 functional groups that reacts with the crosslinking agent at elevated temps. The invention also encompasses a process to make such compns. by partially reacting the three components, preferably for 0.5 to 10 h at 60 to 120.degree.C, and optionally in the presence of a small amt. of catalyst, to give phase stable compns. and subsequently completely crosslinking the compn. The invention also encompasses a process for painting a substrate which comprises priming the substrate with a primer selected from the group consisting of epoxy resin primers and polyester resin primers, applying to the primed substrate a crosslinkable basecoat compn. comprising from 10 to 80 percent by wt. of a hydroxy functional polydiene polymer having a functionality of at least 1.3, from 8 to 60 percent by wt. of an amino resin crosslinking agent, and from 2 to 40 percent by wt. of a reinforcing

agent, and applying over the base coat a clearcoat selected from the group consisting of dihydroxy polydiene-based clearcoats, polyester clearcoats, and acrylic clearcoats. A typical coating compn. contained hydrogenated polybutadienediol 40, 2,2,4-trimethyl-1,3-pentanediol 20, 2-butyl-2-ethyl-1,3-propanediol 20, Cymel 1156 40, Cycat 600 0.4, and aliph. hydrocarbons 67 parts.

IT 115-84-4, 2-Butyl-2-ethyl-1,3-propanediol
(reactive diluent; thermosetting hydroxy-functional polydiene polymer coatings)
RN 115-84-4 HCA
CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



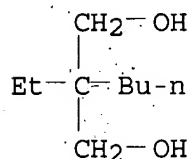
IC ICM C08L019-00
ICS C08L019-02
CC 42-10 (Coatings, Inks, and Related Products)
IT 80-04-6, Hydrogenated bisphenol A 80-05-7, Bisphenol A, uses
115-84-4, 2-Butyl-2-ethyl-1,3-propanediol 144-19-4,
2,2,4-Trimethyl-1,3-pentanediol
(reactive diluent; thermosetting hydroxy-functional polydiene polymer coatings)

L63 ANSWER (5) OF 6 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 126:19825 HCA
TITLE: Oil-soluble polyesters, resin modifiers
therefrom, and resin compositions containing
them
INVENTOR(S): Kitahara, Shizuo
PATENT ASSIGNEE(S): Nippon Zeon Co, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|------|----------|-----------------|----------|
| JP 08245770 | A2 | 19960924 | JP 1995-80796 | 19950313 |
| AB The polyesters having wt.-av. mol. wt. (Mw) 1000-500,000 and acid value 20-200 mg-KOH/g obtained by polycondensation of .gtoreq.3-valent component-contg. polycarboxylic acids and polyols at CO ₂ H/OH equiv. ratio of 1.02-3 are useful for | | | | |

improvement of coatability, adhesion, and printability of polyolefins. Thus, Haridimer 300 182.0, Haridimer 500 410.0, and 2-ethyl-2-butyl-1,3-propanediol 156.0 g (CO₂H/OH 1.40) were esterified and polymd. in the presence of monobutyltin oxide to give a polyester (Mw 8900, acid value 41.4 mg-KOH/g), 2 parts of which was blended with 98 parts MS 670 (polypropylene), kneaded, and compression molded to give a film showing contact angle 80 degree and good adhesion to a urethane coating.

IT 115-84-4DP, 2-Ethyl-2-butyl-1,3-propanediol, polymers with fatty acid dimers
(oil-sol. polyesters for polyolefin modifiers)
RN 115-84-4 HCA
CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C08G063-12
ICS C08L067-00; C08L101-00
CC 37-6 (Plastics Manufacture and Processing)
IT 115-84-4DP, 2-Ethyl-2-butyl-1,3-propanediol, polymers with fatty acid dimers 137802-76-7DP, Haridimer 500, polymers with fatty acid dimers and polyols 183851-94-7P 183851-98-1P
(oil-sol. polyesters for polyolefin modifiers)

L63 ANSWER 6 OF 6 HCA COPYRIGHT 2000 ACS
ACCESSION NUMBER: 125:61115 HCA
TITLE: Reactive two-part polyurethane compositions and optionally self-healable and scratch-resistant coatings prepared therefrom
INVENTOR(S): Ho, Chia-Tie
PATENT ASSIGNEE(S): Minnesota Mining and Mfg. Co., USA
SOURCE: PCT Int. Appl., 118 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|--|------|----------|-----------------|----------|
| WO 9610595 | A1 | 19960411 | WO 1995-US12812 | 19951003 |
| W: AU, BR, CA, CN, JP, KR, MX, US | | | | |
| RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| CA 2200216 | AA | 19960411 | CA 1995-2200216 | 19951003 |

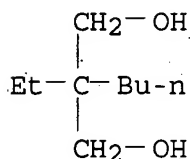
| | | | | |
|-------------------------------|----|----------|-----------------|----------|
| AU 9539485 | A1 | 19960426 | AU 1995-39485 | 19951003 |
| AU 705850 | B2 | 19990603 | | |
| EP 784641 | A1 | 19970723 | EP 1995-937356 | 19951003 |
| R: DE, ES, FR, GB, IT, NL, SE | | | | |
| CN 1159816 | A | 19970917 | CN 1995-195489 | 19951003 |
| BR 9509250 | A | 19971021 | BR 1995-9250 | 19951003 |
| JP 10506940 | T2 | 19980707 | JP 1995-512133 | 19951003 |
| US 5798409 | A | 19980825 | US 1997-817610 | 19970401 |
| PRIORITY APPLN. INFO.: | | | US 1994-317853 | 19941004 |
| | | | WO 1995-US12812 | 19951003 |

AB The title two-part reactive polyurethane compns. are prepd. and cured to give coatings exhibiting high damping character, excellent scratch-resistance, excellent mar-resistance, and self-healing characteristics.

IT 115-84-4DP, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates (reactive two-part polyurethane compns. for self-healable and scratch-resistant coatings)

RN 115-84-4 HCA

CN 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



IC ICM C08G018-42

ICS C08G018-66; C08G018-12; C08G018-08; C08G018-61; C08G018-62; C08G018-50; C08G018-40; C09D175-04

ICI C09D175-04, C09D133-00

CC 42-10 (Coatings, Inks, and Related Products)

ST water base two part reactive polyurethane; scratch resistant polyester polyurethane coating; **clear coat** polyester polyurethane; acrylic polyurethane curable coating; siloxane polyurethane coating material; self healing polyurethane coating

IT 75-21-8DP, Oxirane, polymers with di-Me siloxanes, polyurethanes 77-99-6DP, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates 105-08-8DP, 1,4-Cyclohexanedimethanol, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates **115-84-4DP**, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates 5124-30-1DP, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates 54735-63-6DP, Tone 305, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates 112326-97-3DP, Joncryl 540, polymers with polyester diol, carbinol-terminated siloxanes and polyisocyanates 133248-70-1DP, polymers with polyester diol,

carbinol-terminated siloxanes and polyisocyanates 169150-66-7DP,
 Bayhydrol XP 7043, polymers with polyester diol, and
 carbinol-terminated siloxanes 174206-44-1DP, Luxate HT 2000,
 polymers with polyester diol, carbinol-terminated siloxane and
 perfluoro ether diol 178096-32-7P, DP 56-160 178253-79-7P
 178253-85-5P 178253-87-7P 178253-88-8P 178253-89-9P
 178253-90-2P

(reactive two-part polyurethane compns. for self-healable and
 scratch-resistant coatings)

=> d 164 1-24 ibib abs hitstr hitind

L64 ANSWER 1 OF 24 HCA COPYRIGHT 2000 ACS

ACCESSION NUMBER: 133:18834 HCA

TITLE: Water-thinned, 3-component coating compositions
 containing hydroxy-
 containing polyacrylates and
 polyisocyanates, and their manufacture
 and use

INVENTOR(S): Mayer, Bernd; Rink, Heinz-Peter; Nienhaus,
 Egbert; Loëcken, Wilma

PATENT ASSIGNEE(S): Basf Coatings A.-G., Germany

SOURCE: Ger. Offen., 24 pp.

CODEN: GWXXBX

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---------------|------|----------|------------------|----------|
| DE 19855125 | A1 | 20000531 | DE 1998-19855125 | 19981130 |
| WO 2000032665 | A1 | 20000608 | WO 1999-EP8048 | 19991023 |

W: BR, JP, US

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
 NL, PT, SE

PRIORITY APPLN. INFO.: DE 1998-19855125 19981130

AB Three-component systems for manuf. of coatings with improved water
 resistance **contain hydroxy-contg.**

polyacrylates having Y(OR)_n side and(or) end chains (Y = H
 or C1-4 alkyl, R = C2-6 alkylene or C3-8 cycloalkylene, n = 3-100)
 in 1 of the 2 nonaq. components based on water-thinnable solvents
 and, optionally, in the aq. component and a **polyisocyanate**
 in the other nonaq. component based on water-thinnable solvents. A
 typical **polyacrylate** was manufd. by radical-soln.-polymn.
 of Bu **methacrylate** 231, Me **methacrylate** 261,
 styrene 271, polyethylene glycol **monomethacrylate** 300, and
 hydroxyethyl **acrylate** 437 g.

IT 272119-92-3P

(addnl. binder component precursor; water-thinned, 3-component

compns. **contg. hydroxy-** and polyoxyalkylene-
contg. polyacrylates and
polyisocyanates for waterproof coatings)

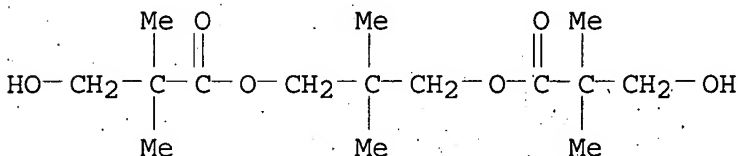
RN 272119-92-3 HCA

CN 1,3-Benzenedicarboxylic acid, polymer with 2-butyl-2-ethyl-1,3-propanediol, 2,2-dimethyl-1,3-propanediol, 2,2-dimethyl-1,3-propanediyl bis(3-hydroxy-2,2-dimethylpropanoate) and 1,3-isobenzofurandione (9CI) (CA INDEX NAME)

CM 1

CRN 60251-13-0

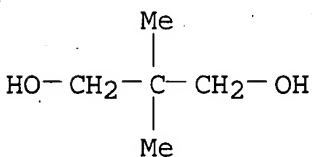
CMF C15 H28 O6



CM 2

CRN 126-30-7

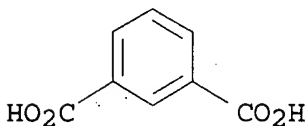
CMF C5 H12 O2



CM 3

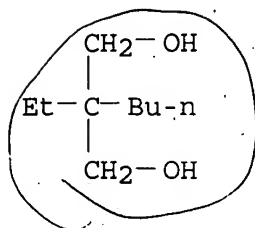
CRN 121-91-5

CMF C8 H6 O4



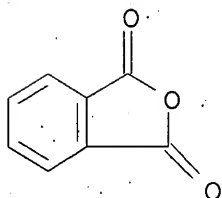
CM 4

CRN 115-84-4
CMF C9 H20 O2



CM 5

CRN 85-44-9
CMF C8 H4 O3



IT 272119-94-5P

(addnl. binder component; water-thinned, 3-component compns.
contg. **hydroxy-** and polyoxyalkylene-
contg. **polyacrylates** and
polyisocyanates for waterproof coatings)

RN 272119-94-5 HCA

IC ICM C09D175-04

ICS C09D133-14; C09D167-00

CC 42-7 (Coatings, Inks, and Related Products)

ST waterborne waterproof **polyisocyanate** crosslinked
hydroxy polyoxyalkylene contg **polyacrylate**
coating; hydroxyethyl **acrylate** copolymer water thinned
waterproof coating; polyethylene glycol **methacrylate**
copolymer water thinned waterproof coating

IT **Polyurethanes**, uses

(**polyester-**, addnl. binder component; water-thinned,
3-component compns. contg. **hydroxy-** and
polyoxyalkylene-contg. **polyacrylates** and
polyisocyanates for waterproof coatings)

IT **Coating materials**

(water-resistant, water-thinned; water-thinned, 3-component
compns. contg. **hydroxy-** and polyoxyalkylene-
contg. **polyacrylates** and
polyisocyanates for waterproof coatings)

IT 272119-92-3P

- (addnl. binder component precursor; water-thinned, 3-component compns. **contg. hydroxy-** and polyoxyalkylene-**contg. polyacrylates** and **polyisocyanates** for waterproof coatings)
- IT 272119-94-5P 272119-95-6P
(addnl. binder component; water-thinned, 3-component compns. **contg. hydroxy-** and polyoxyalkylene-**contg. polyacrylates** and **polyisocyanates** for waterproof coatings)
- IT 272770-94-2P 272770-96-4P 272770-97-5P 272770-98-6P
(crosslinked coating; water-thinned, 3-component compns. **contg. hydroxy-** and polyoxyalkylene-**contg. polyacrylates** and **polyisocyanates** for waterproof coatings)
- IT 822-06-0D, HDI, allophanate derivs.
(crosslinker; water-thinned, 3-component compns. **contg. hydroxy-** and polyoxyalkylene-**contg. polyacrylates** and **polyisocyanates** for waterproof coatings)
- IT 272119-96-7P 272119-97-8P
(water-thinned, 3-component compns. **contg. hydroxy-** and polyoxyalkylene-**contg. polyacrylates** and **polyisocyanates** for waterproof coatings)

REFERENCE COUNT: 1

REFERENCE(S): (1) Anon; DE 195842626 A1

L64 ANSWER 2 OF 24 HCA COPYRIGHT 2000 ACS

ACCESSION NUMBER: 131:338352 HCA

TITLE: **Acrylic resins and acrylic coating compositions with improved acid and soiling resistance**

INVENTOR(S): Nakajima, Yoshio; Yugawa, Yoshiyuki; Aida, Akihiko

PATENT ASSIGNEE(S): Kansai Paint Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

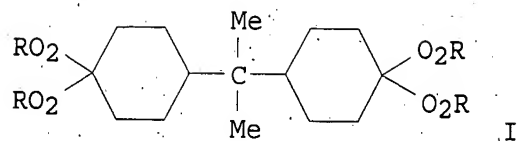
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------|------|----------|-----------------|----------|
| JP 11302589 | A2 | 19991102 | JP 1998-109190 | 19980420 |

GI



AB **Acrylic** resins, for providing coating compns. with improved acid and soiling resistance, are obtained by copolymg. (1) 20-70 wt.% of a benzene ring-contg. unsatd. monomer, (2) a **hydroxy-contg.** unsatd. monomer, (3) a monomer with >1 vinyl group, and optionally, other monomers in the presence of peroxide I (R = tert-alkyl, tert-aralkyl). A coating compn. comprises the above **acrylic** resin and a hardening agent selected from aminoplast resins, **polyisocyanates**, and blocked **polyisocyanates**. A coating method using the above coating compn. is also claimed.

IT 249556-26-1DP, reaction products with **methacrylic** acid derivs., polymers

(**acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)

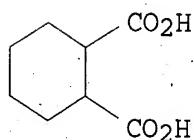
RN 249556-26-1 HCA

CN 1,3-Benzenedicarboxylic acid, polymer with 2-butyl-2-ethyl-1,3-propanediol, 1,2-cyclohexanedicarboxylic acid, 2,2-dimethyl-1,3-propanediol, hexanedioic acid and 1,6-hexanediol (9CI) (CA INDEX NAME)

CM 1

CRN 1687-30-5

CMF C8 H12 O4



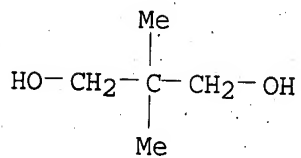
CM 2

CRN 629-11-8

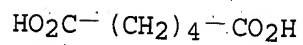
CMF C6 H14 O2

HO-(CH₂)₆-OH

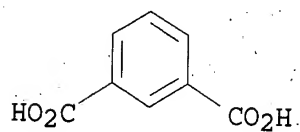
CM 3

CRN 126-30-7
CMF C5 H12 O2

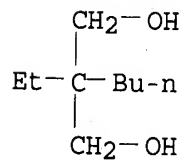
CM 4

CRN 124-04-9
CMF C6 H10 O4

CM 5

CRN 121-91-5
CMF C8 H6 O4

CM 6

CRN 115-84-4
CMF C9 H20 O2

IC ICM C09D125-00

- ICS C08F004-36
- CC 42-7. (Coatings, Inks, and Related Products)
Section cross-reference(s): 37
- ST **acrylic** coating acid soiling resistance
- IT **Coating materials**
(acid-resistant; **acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT **Coating process**
(**acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT Aminoplasts
(**acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT **Polyesters, uses**
(**acrylic**; **acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT **Coating materials**
(antisoiling; **acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT 3088-74-2, 2,2-Bis(4,4-di-tert-butylperoxycyclohexyl)propane
(**acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT 128171-41-5P, Styrene-n-butyl **methacrylate**-isobutyl **methacrylate**-lauryl **methacrylate**-**methacrylic acid**-**acrylic acid** copolymer
(**acrylic** resins and **acrylic** coating compns. with improved acid and soiling resistance)
- IT 79-41-4DP, **Methacrylic acid**, reaction products, polymers
97-88-1DP, n-Butyl **methacrylate**, polymers 100-42-5DP, Styrene, polymers 106-91-2DP, Glycidyl **methacrylate**, reaction products with **polyesters**, polymers 121-44-8DP, Triethylamine, salts with modified **polyesters**, polymers 141-32-2DP, polymers 868-77-9DP, 2-Hydroxyethyl **methacrylate**, polymers 2478-10-6DP, 4-Hydroxybutyl **acrylate**, polymers 3126-63-4DP, Pentaerythritol tetraglycidyl ether, reaction products with **methacrylic acid**, polymers 26588-80-7DP, Styrene-methyl **methacrylate**-butyl **acrylate**-2-hydroxyethyl **methacrylate** copolymer, reaction products with **methacrylic acid** and **isocyanatoethyl methacrylate**, polymers 30674-80-7DP, reaction products with **polyesters**, polymers 42767-92-0DP, Butyl **acrylate**-2-hydroxyethyl **acrylate**-methyl **methacrylate**-styrene copolymer, reaction products with **methacrylic acid** and **isocyanatoethyl methacrylate**, polymers 249556-25-0DP, reaction products with **methacrylic acid** derivs., polymers 249556-26-1DP, reaction products with **methacrylic acid** derivs., polymers 249556-27-2DP, reaction products with **methacrylic acid** and **isocyanatoethyl methacrylate**, polymers 249562-45-6DP, Vylon GK 19CS, reaction products with **methacrylic acid** derivs., polymers 249563-15-3DP, Vylon KS 2050, reaction products with

methacrylic acid derivs., polymers 249563-27-7DP, Vylon KS 2820, reaction products with **methacrylic acid derivs., polymers** 249563-42-6DP, Vylon KS 2700, reaction products with **methacrylic acid derivs., polymers**

(**acrylic resins and acrylic coating compns.** with improved acid and soiling resistance)
 IT 9003-08-1 127464-53-3, Desmodur N 3500
 (**acrylic resins and acrylic coating compns.** with improved acid and soiling resistance)

L64 ANSWER (3 OF 24) HCA COPYRIGHT 2000 ACS

ACCESSION NUMBER: 129:331973 HCA

TITLE: Polymer modifiers containing phenolic resins and polymer polyols, polymer compositions, and their moldings

INVENTOR(S): Kitahara, Shizuo; Ikeda, Shinya

PATENT ASSIGNEE(S): Nippon Zeon Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

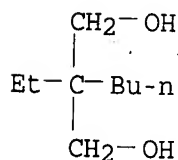
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|----------|
| | JP 10265656 | A2 | 19981006 | JP 1997-73912 | 19970326 |
| AB | Modifiers for improvement of coatability of resin or rubber moldings contain phenolic resins and other polymer polyols. Thus, a rubber sheet comprising EPT 3070 (EPDM) 100, Seast 116 140, Diana Process Oil PW 380 57, ZnO 5, stearic acid 1, Vesta PP (drying agent) 5, S 1.0, vulcanization accelerators 3.25, terephthalic acid-2,2-dipropyl-1,3-propanediol-ditrimethylolpropane copolymer 8, and PS 2608 (thermoplastic phenolic resin) 5 parts was coated with a urethane coating to give a test piece showing peeling strength 1.4 kg/cm ² . | | | | |
| IT | 115-84-4DP, polymers with Haridimer 250 and diethylene glycol and pentaerythritol 197806-48-7P 208759-99-3P 214632-77-6P (polymer modifiers contg. phenolic resins and polyester polyols for improvement of coatability of polymer moldings) | | | | |
| RN | 115-84-4 HCA | | | | |
| CN | 1,3-Propanediol, 2-butyl-2-ethyl- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME) | | | | |



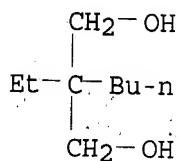
RN 197806-48-7 HCA

CN 1,4-Benzenedicarboxylic acid, polymer with 2-butyl-2-ethyl-1,3-propanediol and 1,2,3-propanetriol (9CI) (CA INDEX NAME)

CM 1

CRN 115-84-4

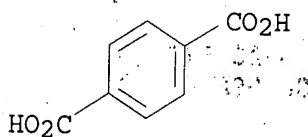
CMF C9 H20 O2



CM 2

CRN 100-21-0

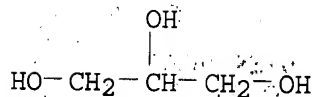
CMF C8 H6 O4



CM 3

CRN 56-81-5

CMF C3 H8 O3



RN 208759-99-3 HCA

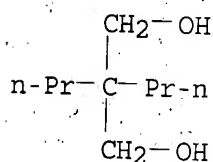
CN 1,3-Benzenedicarboxylic acid, polymer with 1,4-benzenedicarboxylic acid, 2-butyl-2-ethyl-1,3-propanediol and 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] (9CI) (CA INDEX NAME)

CM 1

RN 214632-77-6 HCA
 CN 1,4-Benzenedicarboxylic acid, polymer with 2,2-dipropyl-1,3-propanediol and 2,2'-[oxybis(methylene)]bis[2-ethyl-1,3-propanediol] (9CI) (CA INDEX NAME)

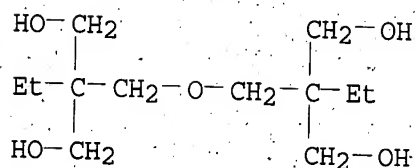
CM 1

CRN 24765-54-6
 CMF C9 H20 O2



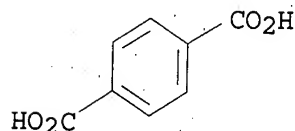
CM 2

CRN 23235-61-2
 CMF C12 H26 O5



CM 3

CRN 100-21-0
 CMF C8 H6 O4



IC ICM C08L067-00
 ICS C08L061-06; C08L069-00; C08L101-06; C09D201-06
 CC 39-9 (Synthetic Elastomers and Natural Rubber)
 Section cross-reference(s): 37, 42
 ST polymer modifier phenolic resin polyester polyol; EPDM
 rubber modifier phenolic resin polyol; terephthalate propanediol



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| No. | Doccode | Number of pages |
|-----|---------|-----------------|
| 1 | CTNF | 6 |
| 2 | 892 | 1 |
| 3 | 1449 | 1 |

Total number of pages: 8

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